

THE NORTH DAKOTA FARMER



50 Cents A Year

Vol. 17, No. 10

Alex Alin

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Lisbon, N. D.

April 15, 1916

Fargo, N. D.



PARTNERSHIP

"Livestock is an important part of the farm enterprise and the children are given a real interest by giving them ownership of some of the animals. The girls and boys who have this kind of an experience will not want to leave the farm. They have learned to look deep into the farm and its possibilities. They have had the exhilarating experience of seeing their care and labor transform things of small value into things that command a big price on the world's markets. In other words they have seen their labor develop into what they can exchange for whatever they may want of the world's goods. The child that is given this experience is fortunate indeed."

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Where the Wind Does the Work

TO WHOM IT MAY BE OF INTEREST:

The Windmill Electric Plant which we purchased from Mr. George Manikowske and which he installed in the month of February, 1915, has been running now within a few days of a year and every unit of the plant has as yet proved a perfect success and I think if there were any flaws or errors in the plant I should surely have come in contact with some of them. Its main fuel is the wind with a little distilled water for the batteries. We oil the generator and idler once a week; the wheel running on a large pair of Timken Roller Bearings needs but very little oil.

The generator which we have is a $1\frac{1}{2}$ K. W. and gives a flow of thirty amperes at fifty volts; but the wheel has power in almost any kind of wind we have to drive a generator of at least two kilowatts. Still the one which we have, if we had a storage battery large enough, would light two or three farms as large as ours. The switchboard is practically automatic, having an automatic regulator holding the voltage on the lights at 32 volts.

We have the Edison Storage Battery, being a 36 volt 225 ampere hour battery, which has furnished us lights and current to pump water into the pressure tank also to run cream separator, electric iron and vacuum sweeper. We are more than pleased with the plant and also the careful attention of Mr. George Manikowske in connection with the welfare of the plant.

We wish you the advantage of an Electric Light Plant generated by the wind and Mr. George Manikowske the success of selling you the same as he has the first and as yet the only successful Electric Windmill on the market.

Giving you my best regards, I remain

JOHN L. WILLIAMS,
R. No. 1, Cleveland, N. D.

OUR ABSOLUTE GUARANTEE OF SATISFACTION

is a certificate of deposit for the full amount of your investment until you are fully satisfied that your plant is worth every cent you have paid for it.

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will give you light and power for
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THE NORTH DAKOTA FARMER

Vol. 17, No. 10

LISBON N. D., APRIL 15, 1916

50 Cents a Year

Let Us Reason Together

THE North Dakota Farmer is a strictly agricultural magazine. Being well along in its seventeenth volume it is not a new venture.

In assuming editorial management of the North Dakota Farmer it is our purpose to give its readers the best thoughts on the home, farm management, agricultural education and whatever may suggest itself in the way of helping to make this commonwealth the greatest agricultural state in the Union.

After thirty-three years residence in the state, either as actual farmer or President of the North Dakota Agricultural College, and for 18 years also Director of the Government Experiment Station, I feel loath to give up my life work even for a brief season of inaction.

Then, there are thousands of former students scattered over this and the surrounding states to whom a monthly message will doubtless be welcome. Moreover, a medium for exchange of ideas and for binding present and former students together into one large industrial family, as it were, will prove helpful

as well as interesting to them as well as to the business of farming in general.

While it is too early to indicate improvements that may be made, yet we can promise that the North Dakota Farmer will be absolutely loyal to the interests of the bona fide farmers of this and surrounding states. At the same time it will be the policy of this paper to encourage every legitimate business interest that now or hereafter may be established in the state.

While the North Dakota Farmer recognizes agriculture as the principal industry and will foster it in every proper way, it realizes also that agriculture must co-operate with bankers, railroads and business interests in

general, but must not be dominated by any one or all of them. The co-operation must be fair and on the principle that farmers shall eliminate, wherever possible, waste resulting from tolls exacted by needless middlemen or other speculative agencies that are organized for the purpose of exploiting the farmer.

FARM NEWS ITEMS

Items of farm news are solicited from every corner of the North Dakota Farmer's territory. Anything in the way of personal observation or

THE BUSY SEASON

The spring months are a busy season for farmers. For twelve years, in pioneer times, we wrestled with the problems of getting the seed in as early as possible and in the best condition.

Owing to the brevity of the season long hours must be employed each day and more or less bad weather encountered. This, however, is the farmer's lot. It is little wonder, therefore, when the labor has been performed and all the insect, fungi and seasonal risks have been taken that the farmer has come to demand

his fair share of the profits that the harvested crop warrants. Never before in the history of the northwest have farmers taken a more determined stand for their share of the consumer's dollar. And what is more, they will succeed.

THE SEED BED

The quality and yield per acre will be governed very largely by the seed bed. In the haste to seed the largest possible acreage in the briefest period of time a poor seed bed for the grain often re-

sults. No greater mistake can be made. Better to seed fewer acres on thoroly tilled soil than take the chances of more acres seeded on badly cultivated land.

Should the season prove exceptionally favorable the difference in quality and yield will be less noticeable. But seasons are not always favorable. A good seed bed will insure a fair crop under climatic conditions that pinch all the profits out of fields that are put in in a haphazard manner.

GOOD SEED

Modern science as applied to agriculture has demonstrated that seed

FREEDOM

"Oh Freedom! Thou art not, as poets dream,
A fair young girl with light and delicate limbs,
* * * * * A bearded man,
Armed to the teeth, art thou; one mailed hand
Grasps the broad shield, and one the sword; thy brow,
Glorious in beauty tho it be, is scared
With tokens of old wars; thy massive limbs
Are strong with struggling. * * * Oh! not yet
Mayest thou unbrace thy corselet nor lay by
Thy sword; nor yet O Freedom! close thy lids
In slumber; for thine enemy never sleeps,
And thou must watch and combat till the day
Of the new earth and heaven."

experience that will prove interesting or helpful will find a welcome place in the columns of this magazine. Farmers should help each other. Whatever is worth knowing should be passed along. The North Dakota Farmer will prove an excellent medium for exchange of views on all matters that pertain to farm management or house improvement.

Young men and A. C. students, especially, are invited to form the habit of writing short articles for this paper. Those of mature experience are not only invited, but expected to do so.

Help us make this magazine a welcome visitor in thousands of homes.

grain may be thorobred in about the same sense that livestock is thorobred. The difference between scrub and high grade or thorobred livestock is so well understood that the average farmer is ashamed to have scrubs on his farm.

Scrubs are usually star boarders, anyhow, while high grades are profitable. Thorobreds should be even more so, in the hands of an expert livestock breeder.

Practically the same rule applies to seed grain. Imperfect, mixed and mongrel wheat seeded even on good land will produce after its kind.

The best of seed is none too good. Do not, therefore, make the mistake of sowing scrub seed.

WEEDS

Weeds are a nuisance. That hardly expresses it. They are a curse. They are a growing curse. Wild oats especially are raising the percentage of dockage every year. All weeds are bad enough, but wild oats seem to be gaining ground in every part of the state. In many localities this weed is gaining the mastery; that is, it is pinching the profit out of the crop.

Sowing only clean grain will help some; summer fallowing and corn help to clean the land, provided the cultivation is sufficient, tho in the case of corn hand-pulling around the hills has to be resorted to. Alfalfa will beat most weeds. However, the winds waft the weed seeds far and wide and only by co-operation on a large scale can the country reduce weeds to a negligible quantity.

TAKE AN INVENTORY

THE farm should be managed in a businesslike manner. An inventory of the farm and its entire equipment should be taken every winter or early in the spring so that every farmer may know exactly what his capital consists of. By so doing he will know what progress he is making, whether forward or backward, and will be able to correct mistakes before he is overwhelmed by misfortune.

Moreover, nothing will improve a farmer's credit so much as the fact that he is governed by strictly business methods. It will also increase his confidence in himself. This advice is especially applicable to young men engaging in the business of farming.

The old-time happy-go-lucky methods of farming pursued by our fathers and grandfathers will not answer in this highly commercialized age. Competition is too fierce and the margin of profits too narrow to trust anything to chance. The farmer, like the bus-

ness man, must so systemize his work and methods that neither energy nor material are wasted and so that the profits and losses are readily ascertained.

Get yourself a blank book and list your land at its approximate value; also the permanent improvements. Then list the farm animals and farm machinery under separate headings, placing upon each unit its fair valuation. The sum total will represent the value of your holdings. Do this every year and you will readily ascertain what progress you are making—what dividends you are making on your investment.

To go more into detail, list your debts as well and the interest you are paying. What amount of work you and your family, including your wife, are doing and how much you pay for hired labor, etc. Subtract outlay, including depreciation, etc., from income and the dividend you can declare on your investment will interest you. It will be worth the trouble. Don't fail to try it. Begin now.

Then you may be disappointed with the results. That's just the idea. To know is the basis for improvement.

You **must** succeed. You must not become discouraged, but instead so improve your methods that success will be assured. It can be done and you can do it.

RURAL CREDITS

CONGRESS is wrestling as never before with the rural credit problem. From the bills introduced by Congressmen and comments made relative to them it would seem that a strenuous effort is being made to put over a bill that will satisfy the banking interests of the country and especially Wall Street. The farmers are supposed to be satisfied with the name "Rural Credit."

From the best evidence obtainable our North Dakota Congressmen are not favoring any measure that can not be made advantageous to the farmers of the country who are demanding cheaper money on more satisfactory terms.

Since farmers cannot enjoy credit on the same basis as merchants they should be provided with a banking system adapted to their needs as the present banking system is adapted to the needs of business establishments. The merchant can usually dispose of his wares and settle with his bank in 30, 60 or 90 days, then repeat the transaction by starting all over again. The farmer cannot do this. He disposes of his products but once or twice a year—all-wheat farmers but

once—and if conditions are against him, as is often the case, when payday arrives he is without funds to meet his obligations.

As a result a number of heartless loan agents foreclose and take the farmer's property at a fraction of its real value. Others, it is true, are more accommodating, but even so, the farmer generally gets the worst of it. With interest rates at 8 and 10 per cent in the western counties, a bad season cripples the borrower and a succession of bad seasons in too many cases will transfer the title to his property to his banker. The curse of tenantry thus creeps quietly into the state while the wail of the departing closed-out farmer is smothered by the shouts of the booster club that entices fresh victims to enter.

The best security on earth is the earth itself, and for that reason first mortgage security on land should enable a farmer to secure money at a very reasonable rate of interest.

If the farmers of North Dakota would unite upon some co-operative system of farm credits they could cut the rate of interest very materially. Not only that, but money should be had on such terms that danger of foreclosure could be reduced to a minimum. Moreover, there are thousands of young men that would engage in farming if land could be purchased on long time at a reasonable rate of interest.

It is up to the next Legislative Assembly to do some constructive legislation along this line.

AGRICULTURE IN ANCIENT AND MODERN TIMES

THE glory of ancient Rome waned with the decline of her husbandry. In the heyday of Rome's imperial power, senators and even kings gloried in the art of agriculture. To be a farmer was a passport to the most exclusive official society of Rome, for "in that elder day to be a Roman was greater than to be a king." But when drunk with successful warfare that filled her cities with pillaged wealth—and slaves; and when political intrigue and effeminacy, begotten of urban vice and profligacy, had sufficiently corrupted the heart of the empire, Rome fell.

She did not fall for want of bread, for slaves tilled the soil—and the stigma of slave labor, with snobs, still adheres to agriculture.

Rome fell for want of men, for want of free men of rural mind and rugged endurance—such as the open country breeds.

The same law prevails in our day and country. Agriculture is the

strength of our government. The soil is its chief asset. The farmer is loyal. In every emergency thru which our country has passed the call to the rural districts for defenders has never been in vain. On the other hand the response has been immediate and patriotic. The farmers' loyalty to the flag has never been questioned.

Is there not, therefore, something ominous when the farmers of a great agricultural state combine for self-protection? Is an uprising of farmers indicative of a healthy political or economic condition? Is the farmer responsible for existing conditions? Will any one contend that farmers have no grievances? Are not those who profit by the sweat of the tillers of the soil encroaching unduly upon their business and their institutions?

Have the farmers no rights which corporations and politicians, whether appointed or elected, are bound to respect? Think it over.

North Dakota will become a great commonwealth if her agriculture can be made sufficiently independent of parasitical encroachments as to attract the strong and vigorous among her young people, into rural activities. But anything that savors of peasantry will repel them. The day has gone by when any form of tyranny will be submitted to without resentment whether it be political, social or financial.

When, therefore, the farming population rise up in revolt against conditions that are imposed upon them, it would seem better to eliminate the cause than attempt either to crush, outwit, or ridicule them into submission. The fact that farmers are proverbially patient and undemonstrative would indicate that they have been imposed upon, or, at least, they think they have been imposed upon, and to such an extent that open abuse and ridicule will not frighten, nor will mere promises reconcile, them.

Farmers realize that they cast a majority of the votes and bear the chief burdens of taxation. They realize also that officials, when elected or made such by accident of appointment, seldom consult the wishes of the people, but too often resolve themselves into a political machine for the promotion of selfish schemes or for the political advancement of selfish men.

Is it any wonder that patience ceases to be a virtue? Can the business men of this agricultural state afford to uphold and wink at political and economic conditions that breed a revolt among the farming people?

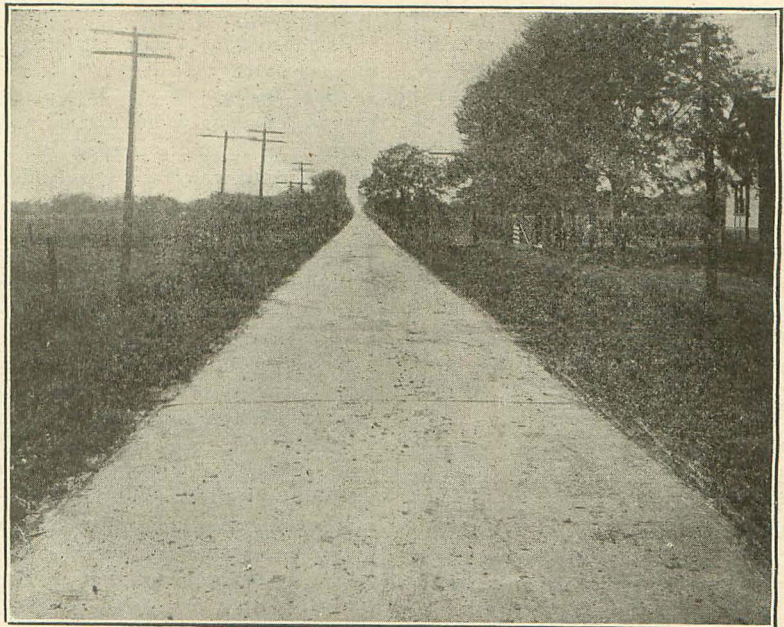
The spectacle is not a pleasing one. To charge the uprising among the farmers to agitators is only partly fair. The abundance of material for agitators to work upon cannot be

charged either to the farmers or to the agitators. It is the impudence of selfish interests that creates the material which makes a revolt proper as well as possible.

Too long have our political bosses wielded the iron hand on the theory that the people would "soon forget it." That game has been overplayed, and now that the reaction is upon us

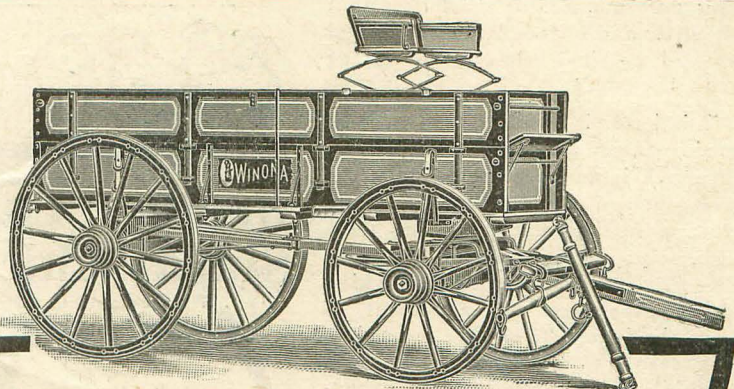
it would be better to purge the political machine and let the people take a hand in their government. The money lords have been tried and found wanting—wanting everything in sight.

Let the people try their hand at managing their own government. They cannot make conditions worse. They may make them better.



A GOOD ROAD IS A PAYING INVESTMENT

The federal government tells us that it costs the farmer, on the average, in North Dakota six cents a bushel to haul his grain from the farm to the railroad; and it costs but nine cents a bushel to transport the same grain from Chicago to Liverpool!



The Wagon that's Built for Service

WINONA Wagons are built to make good in hard, steady road and field use. Extra strong where extra strength is needed. Made from "bone dry", time seasoned oak and hickory, ironed "for keeps."

WINONA FARM WAGONS

OUTER bearing axles prevent breakdowns. Clipped gears, strongest wheels in the world. Bent, double-riveted Felloes. Strongest Skins, Poles and Hounds. Substantial extra cleated Boxes. Durable painting.

Write for Catalog F showing different styles of Winona Wagons with details of their unequalled construction.

WINONA WAGON COMPANY, Winona, Minn.

A GOOD BEGINNING FOR THE YOUNG FARMER

THREE years ago my papa gave me a little colt with a broken leg and I taught her to drink cow's milk. I am offered \$200 for her."

This is what the winner of the 1915 North Dakota Pork-Production contest writes. This little girl took the colt that might otherwise have been knocked in the head and by care and enthusiasm,—and feed, developed it into a valuable horse. The girl has learned a great many lessons in caring for this colt. Thru ownership her interest was developed. It was not drudgery to her to care for this colt. Had it not been for ownership the interest would soon have dwindled and the caring for the colt become drudgery. Furthermore, it has been a demonstration of the creation of value. The small lame colt grows to a big horse that commands a good price on the market.

The letter continues—"I have a muley cow that my papa gave me when a calf 4 years ago and last night she brought me a nice little heifer calf and the sow that has farrowed my two litters of pigs that I have had for the contests brought a nice litter of fall pigs, now five weeks old. My sister and I will have 10 head of fresh cows to milk by the first of February. I will surely have lots of milk for our pigs again. My papa has sold from his farm this year (1915) horses, cattle, sheep and hogs \$1334.20. This does not include the butter that my sister and I made last summer and we had no hired help only for haying and shocking."

This letter is a splendid index to a good system of farm management. Livestock is an important part of the farm enterprise and the children are given a real interest by giving them ownership of some of the animals. The girls and boys who have this kind of an experience will not want to leave the farm. They have learned to look deep into the farm and its possibilities. They have had the exhilarating experience of seeing their care and labor transform things of small value into things that command a big price on the world's markets. In other words they have seen their labor develop into what they can exchange for whatever they may want of the world's goods. The child that is given this experience is fortunate indeed. It has learned the real lesson of *modern life*.

The fun in life is in activity not in idleness. And the more useful the activity the greater the joy.

Vigilance Versus Losses

Dr. L. Van Es, N. D. A. C.

The task of the management of any business, not only consists in so conducting affairs, that there may be a fair degree of profit, but also that losses may be prevented. In many cases even the profits will take care of themselves if the losses can be eliminated.

The farmer as a rule has been very slow to learn the lesson of loss prevention, because in the first place he has so commonly been led to look upon himself and vocation as upon something to which the laws and rules of ordinary business do not apply and in the second place losses are so often due to the forces of nature over which he thinks he has no control, that he does not worry much about it and simply takes a gambler's chance.

Under the condition of the predatory farming of the pioneer, when land was cheap and plentiful such an attitude was no particular disadvantage but with the tightening up of agrarian economic conditions, the old system of extensive farming with poor business methods or none at all must fall and the farmer of today is already compelled to put a not inconsiderable amount of headwork into this affairs.

In spite of the fact, that to nothing is the human mind more resistant than to new ideas, a change in the business of farming is well under way and this change is for the better. It will bring greater prosperity, a more

healthy independence and a higher and more just civilization, the latter always having a material foundation.

One of the first evidences of this

CREAM, Poultry, Eggs, Dressed

Veal, Hides, Fur, Wool, Beans.
This is your best market. Write for quotations, Tags
THE R. E. COBB CO., St. Paul, Minn.

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Before you buy any more fence, write for facts about our 26-inch ECONOMY HOG FENCE at 12½¢. per rod. Many other styles and prices.
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For farm and Home. Always ready. 10 light plant \$100.00. 20 light \$175.00, 30 light \$215. Easy to operate. Guaranteed. Send for Catalog. Agents wanted.

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Throw away your crank. Start from the seat with a **SANDBO 2-Compression STARTER**. 32,000 sold. Differs from all others. Sold on 30 days trial; positive. Guaranteed. Now improved 1916 model—price \$14.
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are reared only in homes kept strictly clean and sanitary. Every baby chick in your yard represents an investment of time and money. White diarrhoea and other fatal diseases, when once started in a flock spread rapidly. Don't take chances with your investment. Prevent contagion, lice, mites, etc., from getting a foothold in your flock by using

CARBOLA
The Disinfecting White Paint

to spread health and sunshine into every corner of your plant. A snow-white mineral paint with which is combined the most powerful, germ- and vermin-killing disinfectant known to science. Completely effective yet absolutely harmless to the birds. If you want your birds to have clean, wholesome, sanitary quarters

Use it instead of whitewash

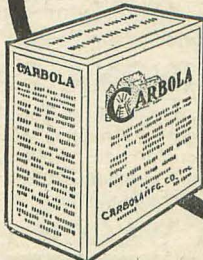
Comes in powder form. Mix with water and it is ready to use.—no straining or bother of any kind. Easily applied with brush or sprayer. Will never flake, peel or blister. Send 25 cents now for trial package—money refunded if results are not satisfactory. Your dealer carries it in stock or can get it for you at the following prices:

10 lbs. (10 gal.) for \$1 plus postage.
20 lbs. (20 ") for \$2 delivered free.
50 lbs. (50 ") for \$4

Do not accept a substitute. Write us if your dealer will not supply you. We'll rush shipment to you.

Carbola Chemical Company

Dept. J.
7 East 42nd St., New York



step on the road of progress is the increasing number of animals now to be found on our farms. We are commencing to correlate animal husbandry and crop growing, slowly learning that in successful farming the two must go hand in hand.

To many this change brings new problems. Some have had adequate experience with livestock, others have not, while it must not be forgotten that the handling of livestock requires more exacting care, when we are dealing with the more profitable but also more delicate improved breeds of today in the place of the long-horned steer, razor-back hog, or broncho of our fathers.

In the business of successful animal husbandry, the loss problem, referred to above is continually making its presence known, seriously demanding attention. Its solution requires a rich fund of information of such a variety of factors, as proper feeding, markets and marketing, suitable selection of animals and types, maintenance and care.

Foremost among the loss factors we recognize injury and disease, and their prevention rests to a very large extent with the farmer himself. Not only is he the one upon whom the animals, whatever they be, depend for proper care, but in the face of disease he is the one who should recognize its existence at a time when it is still possible to cut it short or to prevent further losses.

In order to acquit himself of this task, which after all he owes to himself more than anybody else, he must be willing to familiarize himself with the subject of disease and above all be prepared to give careful attention to many details in connection with his stock.

It is far from us to demand of the animal husbandryman, that he qualify as an expert in animal diseases, but he should set himself to acquire at least a working knowledge of the principles underlying animal sanitation and disease prevention. It may be a difficult thing for us to learn that in dealing with disease our greatest achievements rest on prevention and not on cure. Intelligent disease prevention is a comparatively recent acquisition and it certainly is this when we contemplate the fact, that people have for ages looked for cure as the only salvation from the evils of disease. The passion for cure is bred into us so deeply that often we cannot think of anything else. Not that we in the least deprecate the splendid advance made in the cure of many diseases, but we must recognize the fact that this is more the field of the trained expert, while disease prevention is

Elwood Fence

A perfect hinge joint is formed at every second cable, making an elastic, long-life fence yet sufficiently rigid to prevent sagging. Made of tough, springy steel with a thick coat of galvanizing that adds to appearance and resists weather.

American Steel Fence Posts—cheaper than wood and more durable. Last a lifetime. *Sent Free*—write for booklet on how to set posts and erect fence. Every farmer should have it.

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Get Rid of WORMS

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Do you know that ninety per cent of all live stock losses are caused by Worms and Indigestion and both these conditions are preventable? Get rid of the blood-sucking worms and you will remove the chief cause of losses. Wormy animals can't thrive; the food they eat is largely wasted; they run down in condition—become easy victims to diseases. Worms eat up your high cost feed—bring on indigestion—cause heavy loss. Get rid of the worms with—

The Great SAL-VET Worm Destroyer **The Great SAL-VET Live Stock Conditioner**

The medicated salt without Antimony. Give your animals free access to it; they'll rid themselves of worms. Costs only 1-12 of a cent a day for each sheep or hog and only 1-3 of a cent a day for each horse or head of cattle. SAL-VET will do the work; I'll prove it or no pay.

DON'T SEND MONEY—JUST THE COUPON

Fill in the coupon below—tell me how many head of stock you have; I'll supply you enough SAL-VET to last your animals 60 days. You pay the freight when it arrives; feed as directed, make a specific report at the end of 60 days. If SAL-VET does not do what I claim it will cost you nothing.

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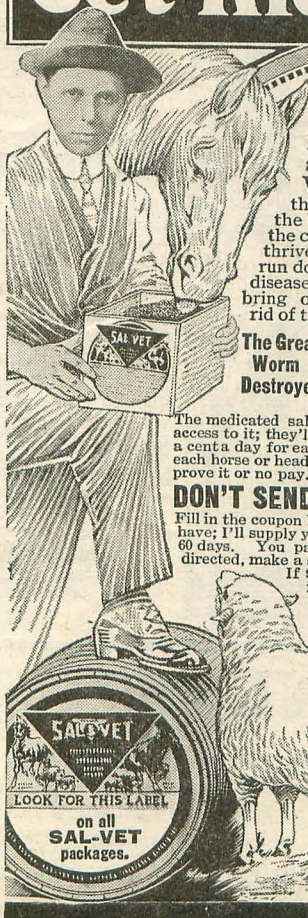
Supply me enough SAL-VET to last my stock sixty days. I agree to pay the freight, feed it as directed, and will then pay for it if it does what you claim. If it fails and I so report specifically in sixty days you are to cancel the charge and I will owe you nothing.

I have.....hogs.....sheep.....horses.....cattle

Name

P. O.

Shipping Sta.....State.....



PRICES

40 lb. pkg. - \$ 2.25
100 lb. pkg. - 5.00
200 lb. pkg. - 9.00
300 lb. pkg. - 13.00
500 lb. - 21.12

Extra discount in larger quantities.
Not less than 40 lbs. sent on this 60-day offer. 60 days' trial are based on 1 lb. of Sal-Vet for each sheep or hog and 4 lbs. for each horse or head of cattle. Dealers sell Sal-Vet at above prices but in the far West and South the prices are a little higher on account of the extra freight charges.



something in which nearly everybody can achieve something or can render efficient aid.

It deeply concerns the ones who depend upon the rearing of animals for a living or profit and their business equipment should contain a certain amount of knowledge of the underlying facts of disease and the principles of prevention.

A certain part of the reading during the long winter evenings may well be devoted to this subject. There is no lack of literature on this topic and its perusal would mean infinitely more than the stuff that so many of us are apt to absorb. To inform ourselves on the questions of the day is a duty of any intelligent citizen, which should not be neglected. This can be done, however, without restricting ourselves to this alone, or without forgetting that there are so many subjects of a more immediate interest to our own well-being and success. To learn how to keep our herds free from tuberculosis, how to handle an outbreak of hog cholera, how to meet the advance of contagious abortion is certainly far to be preferred to the contributions to confusion dished up by third-rate politicians, exploiters and space writers.

The efficiency of the individual in his own field is after all the best guarantee of general welfare, and the stockmen are especially confronted with many problems demanding knowledge and attention to detail for their solution.

Returning to the diseases just mentioned as an example, the stockman has it in his power to have or not have tuberculosis in his herd. He is the one to take the initiative in its eradication from a herd already infected, he is the one upon whose vigilance depends whether or not it shall be introduced into a clean herd. In North Dakota the state stands ready by its splendid cattle tuberculosis law, to render to the farmer the most efficient assistance, but the farmer himself is the one who has to make the first move.


In hog cholera, it is the farmer again who is the first to discover the existence of the disease and even if he may not be familiar with it, it is up to him to take the initial steps to-

wards its recognition and the prevention of further spread. If he has read about the disease or has had previous experience with it, he will know that sickness or deaths in a herd of hogs must never be passed up without a definite attempt to discover the actual causes, whether it pertains to

sucking pigs in the spring or well developed marketable porkers during the fall. If informed he will also know where to turn for help and will not permit the first patent medicine vender or would-be expert to cause him to do the wrong thing.


If even but slightly informed on the

SEED CORN




DON'T take any chances with seed corn for your 1916 crop. Give the matter careful study and realize that the seed question is one of vital importance.

The real value of planting selected proven stocks cannot be over-estimated and our careful ear selection and hand sorting of seed is the surest method of obtaining a mature stand of well filled ears.



YOU MUST SOW

Northern Grown Seed




We are very fortunate in being able to offer North Dakota and Minnesota seed corn of the 1914 crop showing a good, strong germination.

We also have a limited stock of tested 1915 North Dakota grown seed corn that fully measures up to our required standards.

FODDER CORN The sowing of fodder corn is rapidly becoming universal. It provides an excellent forage crop, producing more tons of feed per acre than any other grain or grass. Don't pay high prices for Southern seed with the possibility of a meagre yield when you can get our tested Mammoth Yellow Dent Fodder Corn at a comparatively low price.


You can be sure that an order entrusted to us will have our prompt and best attention. We want you to become acquainted with our established reputation for good seeds, good service and good measure and our constant labors for better crops in the Northwest. We aim to merit your continued trade by our guarantee of complete satisfaction and make you a permanent and loyal customer of Fargo Seed House.

Write at once for samples and our 1916 Catalogue containing Complete List of All Our Seed Grains and Grasses—With Prices



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FARGO NORTH DAKOTA
ESTABLISHED 25 YEARS



“PREPAREDNESS” OVERHAUL YOUR AUTOMOBILE NOW

Get ready for the Spring business. We can give you service in this line, as well as others, for we have expert Welders, Machinists and Mechanics who with our equipment are able to accomplish the most difficult jobs. We rebore motor car and gas engine Cylinders and fit them with larger pistons and rings. We use the very best of material that can be had. Auto Metal Bodies and trailers built, write for prices.

DAKOTA WELDING AND MANUFACTURING CO.,

Telephone 926. 203-5th St. N. FARGO, N. DAK.

subject of infectious abortion, he will suspect something more serious than a mere accident, when his cows at apparently odd times, "slink" their calves. It is he who will look into the cause of it because he will be forewarned. And he will know that neglect may mean unprofitable business if not financial ruin. He will also know that he must bestir himself with preventive measures and not wait until his herd is affected thruout.

The diseases mentioned are only a few among the many which continually threaten our success in animal husbandry. The animal husbandryman should know about them and be continually on the alert. He may learn his lesson by bitter experience and he may do so by gathering a little information beforehand. The latter method certainly is the least expensive, but it will require a certain amount of effort. This effort, however, will put money in his purse.

But not only does stock-raising for profit require study and information, it requires constant attention to details. In no instance is this more apparent than in the care of brood animals. There was perhaps a time once, when such care was not very imperative, but with the gradual improvement of our breeds of livestock, much of this has been changed. By means of skillful selection in breeding, certain especially desirable qualities have been developed, but this has often been accomplished at the expense of body vigor or by the sacrifice of certain protective qualities. Compare for instance the udder of our most highly improved dairy breeds with that of the cattle in the wild or semi-wild-state. In the latter the organ is just sufficient for the purpose intended by nature. It will nourish a calf only for so long as it is absolutely necessary. It is small and almost completely concealed within the space bounded by the thighs. There it is protected against injury and its functional activity is moderate and does not constitute anything resembling a strain. In the former on the other hand, the udder will furnish nutrition to many more than the normal offspring and will do so long after the calf is in its natural state has been weaned. It has developed enormous proportions, has exceeded the limits of its protective space. Hence it has become exposed to a great variety of injuries; other animals may readily step on it, fence wires or thorns or brambles can easily scratch it, etc. Its secretory function is manifold that of its prototype and its natural resistance to infection has been largely sacrificed. It is the udder that readi-

(Continued on Page 13.)

Why Not Have Better Grade of Seed Wheat for Use in 1916

By H. L. Bolley, N. D. A. C.

Answering the above question I would say that the present condition of the general wheat crop relative to the grade of purity of the seed used is rather deplorable. One of the worst features consists in the fact that farmers in the continuous wheating process get a large admixture or volunteer grain of the same kind but of different variety in their grains. Thus, for example, in the Durum wheat the admixture of the ordinary wheat that the average farmer and seed house is selling for seed runs somewhat above 6 or 8%. Only a few men can be found

who have a pure variety of any kind of wheat and they usually have it in so small quantity that they cannot sell it to anybody else. Wheats of different variety have different ripening dates, different milling qualities different yielding qualities, and cannot be properly harvested and saved to get good grain.

How Shall We Change this Condition? The North Dakota Experiment Station and Extension force cannot change it. They can only talk about it. The farmers and handlers of wheat must change this condition.

Reboring and Grinding of Cylinders

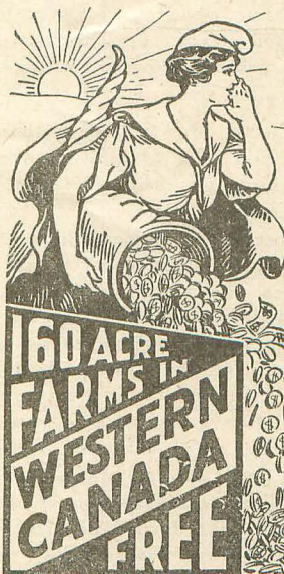
This is the time to fit up your steam engines and gas tractors for the coming season

We can rebores and grind your cylinders, fit new oversize pistons and rings, make and fit new crank pins, straighten shafts, bore and bush gears and clutches or do any kind of machine work. Refue boilers and replace stay bolts. We carry in stock all sizes of stay bolts, patch bolts, bracket bolts, rivets, boiler flues, stay-bolt taps and boiler taps, shafting, shaft hangers, cast iron pulleys, wood split pulleys. Write and let us quote prices on any work you have.

Craig Brothers, Fargo, N. D.

P. O. Box 295.

Telephone 554 W.



Wanted 50,000 Farm Hands

of experience at once on the farms of Western Canada

To replace the young farmers who have enlisted for the war. Good wages and full season's work assured.

There is no danger or possibility of Conscription in Canada.

References required from all applicants. For special railway rates and other information apply to .

W. E. BLACK,
Clifford Block, Grand Forks, N. D.

Canadian Government Agent.

The handlers must stop mixing the samples as soon as they get them. Each man's lot of seed should be sold separately and not mixed with some other man's lot of seed. Farmers should not be satisfied to buy seed out of general elevators after the varieties have been intermixed. These are only general statements.

What to Do. (1) Raise your own seed and since many men each year will be unable to raise their own seed because of accident or other conditions, raise some to sell to your neighbors or to seed houses to supply the demand. There is good money in it.

(2) Get the best seed you can this year. Select hard, amber, bright colored stuff, heavy weight seed. Grade it until nothing remains but the best looking wheat grains—treat it regardless of whether it did or did not contain smut. There is scab and other diseases on the seed.

(3) Have a seed field, but remember it is not necessary to have it fenced off from the rest of the farm like a garden spot. The size depends upon how much seed you want to raise. Its location depends almost wholly on how well the ground is drained and what kind of crop was on the land last year. The seed plot should be some portion of your regular wheat field, the best side of the field. If there was wheat there last year, then you should not sow a different kind of wheat on the plot

this year, but the same kind. In fact, I would not recommend trying to raise seed wheat on land that had wheat on last year. Select a portion of the field which was early fall plowed or summer worked to corn or other crop, one which was free from weeds last year, and one which will not produce any volunteer grain this year. Having selected this side of the field set your drill to sow less seed than you ordinarily use on the general crop. A bushel of good seed is abundant, and 40 pounds would be better for the seed crop.

Plug Up One Cup in Each Side of the Drill, the 6th Cup from the End.

The cup can be plugged with cotton, or any other way. This will leave an empty shoe. Drive so that the wheels track. You will then have the wheat on this area on which you are going to raise seed for 1917 growing in narrow strips about five or six feet wide, with a path between each strip thru which you can walk at any time without tangling up the grain. This, to my mind, is one of the most important steps in improving the wheat crop, for you can walk thru these paths at any time and pull out any weed or false kind of wheat or other grain or any diseased plant that shows up.

With the wheat seed graded and handled and planted in the manner above indicated you can have by harvest time an area big enough to raise all the seed you want which will have only the variety of wheat in it that you want to grow. It is just as easy to pull Blue Stem out of Fife wheat as it is to pull mustard out. It is just as easy to pull out the loose smut, for which there is no satisfactory treatment, as it is to pull out mustard and it is very much more important that it be done. At or near harvest time when the scabbed heads or blighted heads begin to show up, any boy will recognize them and they can be pulled also.

Harvesting. In a later article we will tell you how to do this weeding and roguing to purify the plot, and in a following article how to harvest it. At present the wisest thing that I can advocate is that you try this plan and when the wheat is ripe, cut it just a little while before thoroly mature. Harvest it when there is no dew or rain on the straw and shock it in such manner that it does not get wet. A few canvas-cap covers will keep all the seed that you need for yourself dry. A half day's work at harvest time will give you good seed for all of your farm and some for your neighbors. Order the canvas covers now.

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All kinds of factory rebuilt typewriters for sale at very low prices—\$10 and up. Farmers, teachers, doctors, lawyers,—everybody uses a typewriter nowadays. Why not you? Our prices make it possible for anyone to own a typewriter of his own. Write us at once.

Berg Typewriter Exchange
Dept. 21, - Hendrum, Minn.

Caught 51 Rats One week

Trap resets itself; 22 inches high; will last for years. Can't get out of order; weighs 7 pounds. Twelve rats caught one day. Cheese is used doing away with poisons. The trap does its work and never fails and is always ready for the next rat. When rats and mice pass the device they die. Rats are disease carriers; also cause fires. These Catchers should be in every school house. Rat Catcher sent prepaid on receipt of \$3. Mouse Catcher, 10 inches high, \$1. Money back if not satisfied.

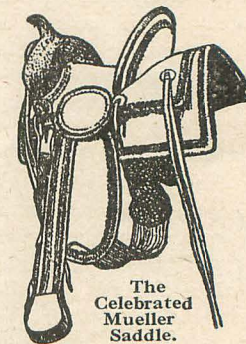
H. D. SWARTS
Inventor and Manufacturer
Universal Rat and Mouse Traps
Box 566 : : : Scranton, Pa.

MINNESOTA FARM FOR SALE

160 acres good clay loam land 3 miles from Leonard, Beltrami County, Minnesota. On state road, 1 mile to school and church. 40 acres under cultivation, balance fenced for pasture. House, barn, granaary and other buildings in good condition. Scandinavian settlement. A bargain at \$30 per acre on easy terms. Write for particulars to

CLAYTON C. CROSS,
18 Markham Bldg., Bemidji, Minn.

A\$45 Saddle,\$36Cash



The Celebrated Mueller Saddle.

Our latest Swell Fork Saddle, 14-inch swell front, 28-in. wool-lined skirt, 3-in. stirrup leather, rig, made of best oak leather, guaranteed beef hide covered solid steel ork.

THE FRED

MUELLER
Saddle & Harness Co., Dept. R. 1413-15-17-19 Larimer St. Denver, Colo. Send in your name for our catalogue now ready.

READ THIS

There must be a reason why there is such a demand for Justin's Boots. If you are going to wear boots, why not wear the best? Yours for the Best Cowboy Boots Made. Send us your address on a postal card and we will send you our catalogue, and self-measuring system.

GIVE US A TRIAL

H. J. JUSTIN & SONS
Mfgs. of Justin's Celebrated Cowboy Boots. NOCONA, TEXAS



For Greatest Satisfaction Use
DOUBLE SERVICE
Automobile Tires
Guaranteed 7,000 Miles Service

Absolutely Punctureproof

Double Service Tires are made double the thickness of the best standard make tires.

This 100% greater wearing surface naturally gives them much more mileage and service. The average of 12 miles of tough

fabric and one inch surface tread rubber makes these tires absolutely punctureproof.

These tires excel all others for use in the country over rough and rugged roads as well as on hard pavements. They are as easy riding and resilient as any other pneumatic tire—the air space and pressure being the same.

They are the most economical and "care free" tires made and are used where tires must be depended on and tire troubles cannot be tolerated. Many Double Service style tires are in use in the U. S. government and European War service.

Our output is limited to a certain amount, but for a short time we offer the following reduced special prices as an introductory offer:

PRICES

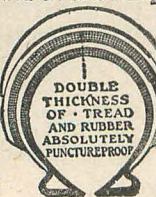
Tires Tubes		Tires Tubes	
30x3 in.	\$8.60 \$2.30	36x4 in.	\$17.45 \$4.65
30x3 1/2 in.	10.85 3.10	36x4 1/2 in.	21.20 5.60
32x3 1/2 in.	12.75 3.20	38x4 1/2 in.	22.60 5.75
33x4 in.	15.75 4.20	38x4 3/4 in.	25.00 6.20
34x4 in.	16.70 4.55	37x5 in.	25.30 6.30

All other sizes not included in above list also furnished. Non-skids at 10% additional.

Terms: Payment with order at above special prices, a 10% discount allowed on orders for two or more tires. All personal checks must be certified.

Try these tires now and be convinced of their very high qualities. Sold direct to the consumer only. Descriptive folder upon request. Write for it.

Double Service Tire & Rubber Co., Akron, O. Dept.



Some Points for the North Dakota Fruit Growers

By C. B. Waldron, N. D. A. C.

In beginning the growing of fruit, particularly if one has had but little previous experience, it is best to begin with such fruits as are sure to succeed in the locality; and, if the more uncertain ones are to be tried, let it be after the fruit plantation is well established.

The one fruit most at home in North Dakota is the plum. This is found growing wild freely in all parts of the state, and in regions farther north. The plum furnished the early settlers with the greater part of their fruit supply, and those living near to streams or timber thickets had no difficulty in securing all of this fruit that they needed. While the state still produces a considerable amount of this fruit, yet owing to the clearing of the land and more especially the pasturing of the woodlands, the total quantity of fruit produced is only a small fraction of that which could be found in the early days. On the other hand, the increased population could profitably use several hundred

times as many plums as can possibly be grown in the wild thickets.

Fortunately, this plum, which is known as the American Plum, was brought into cultivation some fifty years ago, so that now there are a number of varieties that are not only superior to the wild forms in size and quality, but are also more productive and just as hardy. Most of these varieties have not come about thru systematic plant training, but instead are chance seedlings that have been picked up here and there in the Dakotas, Iowa, Wisconsin, and Minnesota.

The plum is never found growing wild upon sandy or gravelly soil. It thrives best in a rich clay loam. This loam should contain enough vegetable matter so that it does not dry out during the summer months.

If one is situated so that he can plant the trees on the north or east slope, he will find they will bear better and live longer than if planted on a south slope. If possible they should also have protection against south and west winds. Where the protection does not naturally exist, it can be quickly provided thru the planting of two or three rows of willows which will reach a height of ten or twelve feet by the time the plums come into bearing.

It has been noticed that any variety of the American Plum bears better when a number of trees are planted close together. It frequently happens that if one-half dozen of the trees of the same variety are planted in a garden with no other varieties near, they are not likely to bear. This is due to the fact that the pollen or fertilizing element of the plum blossom does not mature at the same time that the pistils of the blossoms do. For that reason it is well to plant three or four varieties of trees in such a way that the branches of the trees almost touch each other.

It is important to leave space enough between the rows so that the trees can be kept well cultivated, even after they attain considerable size, twenty feet is about the right distance. The trees in the row can be planted very close together, as close as ten feet.

The best size trees to plant are good two-year-old nursery grown trees. They will be five to six feet in height.

In planting the side branches should be cut back to a length of about two

inches, and the new growth at the top should also be headed back half way. The trees should be set considerably deeper than they grew in the nursery row. And in planting it is important to put nothing but fine surface soil underneath and about the roots, as plum roots will not thrive in a low sub-soil.

From the time the trees are planted they should be well-cultivated and, if desired, a crop of beans, beets or potatoes can be grown between the rows for the first few years.

We have found that it is important to keep the soil about the trees

(Continued on Page 19.)

PURE SEED ASSOCIATION

Lisbon, N. D., March 28th, 1916.

Dear Sir:

We are pleased to report that at the informal meeting held yesterday the following plan for purifying Durum seed wheat was presented.

First: That we secure as clean and pure seed as possible.

Second: That this seed be treated with formaldehyde.

Third: That the selected seed be sown on corn ground, summer fallow or following oats.

Fourth: That the name Special Seed Field instead of plot or seed plot be used.

Fifty: That Durum seed be sown at the rate of about one and one-fourth bushels per acre on summer fallow or manured corn ground.

Sixth: That every member grow, if possible, a Special Seed Field of from one to twenty acres.

Seventh: That during the summer this Special Seed Field be hand-picked and that all bluestem and other wheats as well as barley and cockle be removed.

Eighth: That the Special Seed Field be threshed separately and used for seed the following year.

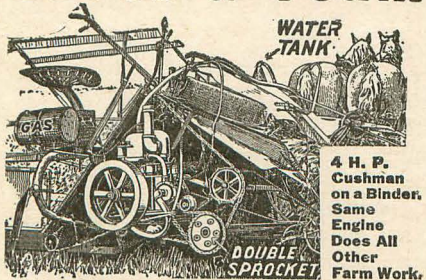
Prof. Bolley of the Agricultural College recommends that alleys one foot wide about every five feet be left in the seed fields. This will enable the field to be hand-picked very easily and without destroying the main crop.

The Association will endeavor to secure a small amount of pedigreed Durum from the State Agricultural College this spring and will distribute same amongst the members who wish to grow it. We trust that you will join us in this work and pass the word on to your neighbors.

Very truly yours,
Ransom County Pure Seed Growers' Association.

Signed: J. A. Billsborrow
A. G. Bemmels

Saves a Team

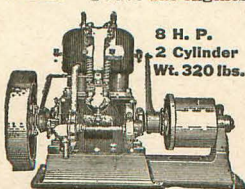


Cushman Binder Engines

For All Farm Work

Thousands are in use in the Northwest, doing all-purpose work, that were bought for binder use. A 4 H. P. engine that will stand up on the binder will deliver the goods on any stationary job. Cushman Engines are Throttle Governed and run easily and quietly. May be run at any speed—speed changed while running. Direct water circulating pump prevents overheating, even on all-day run. Equipped with Schebler Carburetor and Friction Clutch Pulley. Very light weight and easy to move from job to job. 4 H. P. weighs only 190 lbs.; 8 H. P. only 320 lbs. Sizes 4 to 20 H. P. Not a cheap engine but cheap in the long run.

Iver A. Madson, Wheatland, N. D., writes: "I have six engines and the Cushman is



the best. It does not jump like a heavy engine. On the binder it is a great saver of horse flesh. It will do all you claim and more too." Ask for free engine book.

CUSHMAN MOTOR WORKS
88 North 21st Street
LINCOLN, NEBRASKA

North Dakota Farmer

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PUBLISHED EVERY MONTH

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Lisbon, N. D.

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ASSOCIATE EDITORS

E. F. LADD J. H. SHEPPERD
O. O. CHURCHILL C. B. WALDRON

Remittances should be made by Draft, Post-
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Address all business correspondence to the
Lisbon office.

Vol. 17 APRIL, 1916 No 10

VALEDICTION

E. F. Ladd

The writer published the first number of the North Dakota Farmer as the Sanitary Home in March, 1899, just 17 years ago. At the end of two years the form of the publication was changed and it was then called the North Dakota Farmer and Sanitary Home for some two years. Since that time the paper has been published as the North Dakota Farmer. During this period the writer has served as its editor, altho for the past few years very little attention has been possible owing to numerous other demands made upon his time and the responsibility has rested more largely upon the publisher. Having assumed new duties that require my undivided attention, it becomes necessary to give up the editorship of the North Dakota Farmer, and I desire to thank all those many thousands who from time to time have been numbered among its readers, and whose friendship and good-will I prize highly.

I bespeak for this journal a useful place among the farm papers that are striving for recognition, and I know there is a big field of usefulness for one who can devote his energies to the up-building of the paper and in getting more fully in touch with the farmers of the state. It is with sincere regret that I withdraw, but I trust from time to time I may give you a message from my new field of duties.

The best security on earth is the earth itself.

Co-operation is in the air—in the North Dakota air.

Don't worry. It will come your way yet.

"Every nation digs its civilization out of the ground."

The farmer's independence will depend entirely on his willingness to fight for it.

From all indications the farmer's twin bill will be materially boosted the coming season.

Arthur P. Murphy '09 of the A. C. is farming a section and a half of land near Niagara, N. D.

The rural or consolidated school house should be made the social as well as educational center for all its patrons.

The young farmer should be as anxious to get to the top of his profession as does the young lawyer or doctor.

Every school should establish a juvenile system of saving banks that thrift may be inculcated as well as arithmetic.

With the quantity of left-over moisture in the soil the 1916 crop should be equal to that of last year, at least, so far as moisture is concerned.

Just think of making use of the Babcock test in the public schools as a part of the equipment for the education of the rural children. Shades of Cicero! What desecration!

Every farm house should be supplied with running water and a sceptic tank as the very least among modern improvements for the household. Every wife and mother is entitled to the best consideration that the family prosperity will admit of.

Young man, bend all your energies to secure a piece of land while it is yet comparatively cheap. The man that owns land will, in the very near future, be master of his own destiny. Otherwise, with few exceptions, you will be an employee and subject to the will of your employer.

When the young people in the rural districts are encouraged to make up programs for amusement and for mental improvement they will enjoy rather than detest country life. The Little Country Theater at the A. C. is paving the way for making rural community life desirable and satisfying for young and old alike.

Federation of farmers' clubs, federation of farmers' elevators and federation of farmers' interests in general will work for good every time. Farmers have listened to the "independence" racket too long for their own good. Try federation awhile and the other federated concerns that are preaching farmer independence for their own benefit will be glad to meet you half way.

Why should any particular anxiety be felt for the political safety of the state when the vast majority of voters do, for a season, what the minority has been doing for 10! these many years? The decision of a majority of delegates chosen from every voting precinct of the state should be safer than the orders from one man delivered from the West Hotel, Minneapolis. The "vote-her-straight" slogan is guilty of more political sins than the Big Muddy could wash away during a June rise. Under that system the boss does the thinking for his party. But times have changed. The people are doing their own thinking to a much greater extent than when party meant more than efficiency or honesty.

The time has passed when shady political stunts can be pulled off and the people depended upon to soon forget them. Politics should be considered a thing sacred and not a dirty business. Politics is the business of all the people and for the good of all the people and not for the benefit of a few self-appointed patriots (?). These men usually refer to politics as a thing so vile that decent men are polluted the moment they take an interest in things political. What the state needs worse than anything else is a cleansing of politics by driving into private life all who have made it filthy, so that politics and honor become synonymous terms.

Dr. E. F. Ladd, president of the North Dakota Agricultural College, has been honored by the secretary of the navy with an appointment as associate member of the naval consulting board of the United States. This board is composed of a large number of the leading chemists and engineers of the country and is headed by Thomas Edison.

During the past week Dr. Ladd was also tendered the presidency of the Agricultural College of one of the leading southern states, but as his work here has just commenced, he decided to remain in this state to continue his great work.—Courier-News

Livestock Department

FARM AND STOCK NOTES

N. J. Shepherd

Give the dairy cow the care that will develop her milking qualities.

Not until she is mature can a sow's usefulness as a breeder be assured.

Thin egg shells are a sure indication that the hen's ration lacks mineral matter.

The temperature of the cream during the process of ripening should be kept as uniform as possible.

With all stock the cheapest food is that which furnishes the most nutriment at the least cost.

No matter how desirable the soil may be otherwise unless well drained the trees will not thrive.

With the horse the kind of action that is natural to the animal is the kind that stays.

When conditions will admit, it is always best to shear the sheep before turning them out in the pasture.

While the per cent of butter fat will not vary much by feeding we can change it by breeding, feeding and selection.

A large, roomy, growthy sow that is a good milker and suckler counts much in growing the litter the first three months.

With poultry when different strains are mated the defects of each are apt to show more prominently than the better features.

In selecting the sows for breeders do not select the young, fat, plump sow that is immature. Breed from mature animals.

The draft horse should have strong clean action both at walk and trot, and plenty of life but should not be fretful.

Diseased wood in a tree can never be made new again. Cut it off and

allow another shoot to grow in its place.

A good pedigree is a fine thing to have, provided the animal that goes with it has the individual merit to back it up.

The colder the cream is when churned the more exhaustive churning will be attained and the better the grain and flavor of the butter.

Any farmer who has a large orchard and does not keep a flock of fowls upon it is wasting valuable space which could be profitably utilized to advantage.

Good flavor in milk, cream, butter and cheese insures a ready market at remunerative prices; poor flavor condemns them and no one seeks them at any price.

Poultry raising will make a good addition to the profits of the orchard grower and will add to the profit of every farm where it is intelligently handled.

Profit in the orchard depends upon the perfection of the fruits raised and the quantity; and the trees cannot produce their full capacity unless they are well cared for.

One great advantage in keeping sows in breeding as long as they will breed well is that it insures to the grower good large litters of even and uniform quality.

A hog having good length and depth of side when well fed from birth will furnish a carcass full of lean, juicy meat with an even distribution of fat thruout the entire carcass.

Both the chemical composition and its physical form adapt bran admirably as a supplementary food to be used in connection with bulky fodder such as straw and corn fodder.

Temperature, character of butterfat, acidity of cream, richness of cream, amount of cream in churn, speed of

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One Cent a Word

Small advertisements will be classified under appropriate headings at the low price of one cent a word for each insertion. Cash must accompany all orders. Each initial or number must count as one word. TRY IT HERE.

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HOLSTEIN Cows, Heifers and Young Bulls. All ages. Write Envilla Stock Farm, Cogswell, North Dakota.

FOR SALE—Improved Chester White Pigs from April litter, either sex; pedigree furnished. John F. Zimmerman, Davenport, N. D., Route 2.

WORLD'S CHAMPION A. R. RED POLLS! Minnesota Champion A. R. Guernseys Consistent Winners in the 1915 Show Ring 20 of our foundation cows average 601.6 lbs. butterfat, official.
Jean Du Luth Farm, Duluth, Minn.

For Sale: Poland China Spring Pig Boars, S. C. White Leghorn Cockerels. Grimm Alfalfa Timothy and Clover Seeds. Catalog Free. J. W. BECKMAN, COKATO, MINN.

Pure bred Percheron Horses and Shorthorn Cattle Stock for sale. Nels Knutson & Sons, R. 1, Fullerton, N. D.

THE PLEASANT GROVE FARM at Holmes, Grand Forks County, sells registered Shropshire and Oxford Rams and Ewes; also Polled Durham Bull Calves. R. E. Strutz, Bismarck, North Dakota.

REGISTERED Gurnsey bulls old enough for service. Also a few heifers for sale. FRANK W. RICHARDSON, Garden City, Minn., R. 1.

CALVES. SHORTHORNS, rich cherry red, HOLSTEIN, sharp black and white, GUERNSEYS, rich orange fawn with white markings. Few very choice grade calves marked as described above. Straight top line, heavy boned, hardy calves that make big type cattle. Write Edwin Howey, South St. Paul, Minn.

GUERNSEY COWS AND BULLS

\$50.00..... Buys a bull calf
\$100.00..... Buys a yearling bull
\$125.00..... Buys a heifer calf
\$150.00..... Buys a two-year-old bull
\$200.00..... Buys a mature bull or cow
"McLARAN OF WRENSHALL," MINN.

Holstein, Guernsey and Shorthorn Calves. A few extra good ones. Either sex. \$12.50 to \$35. Write Edwin Howey, South St. Paul, Minn., Station F.

HOLSTEINS. Beautifully Marked Holstein heifer and male calves, 15-16ths pure, 4 to 6 weeks old, \$20.00 each, crated for shipment anywhere. All from mature dams and heavy milkers, guaranteed. One car heifers a year old, \$45.00. Write or send order to Edgewood Farm, R. 10, Whitewater, Wis.

ENVILLA STOCK FARM

Cogswell, N. D.
Will quote you special prices on Angus and Holstein Cattle, Feeding and Breeding Sheep, Shetland Ponies, Duroc Jersey Hogs, Wolf Hounds, Collies, Rat, Bird Dogs and other breeds, Angora Cats. All varieties of chickens, turkeys, geese, ducks, guineas, pheasants, rabbits, ferrets. Pets. Live Foxes, Skunks, Mink and Badgers.

DUROC JERSEYS Gilts out of such sows as Golden Model Queen 6th, Model Beauty and other sows as well bred as could be bought at the sales last winter. Write H. N. HOYME, Jasper, Minn.

DUROC JERSEY SPRING PIGS

Buy your new stock now while the price and express will be low. First class stock from prize winning sires at reasonable prices. Unrelated pairs and trios a specialty. New stock for old customers.

Roy W. Jacobs, Wadena, Minn.

I NOW HAVE 65 HEAD OF MAMMOTH JACKS

that cannot be equaled anywhere in the world for size and quality. When you walk around among the jacks you feel as tho' you were walking around among the elephants at Ringling's Circus. I am saying this to impress upon you that my jacks are so very large that they more than meet the requirements for size in your community, something you seldom can find any other place. If you have a stallion you do not need I can use him in exchange for a jack if you can come at once. I can also use a good touring car, a truck and a small gasoline plow outfit.

W. L. DeCLOW,
Cedar Rapids Jack Farm, - Cedar Rapids, Mich.

Bixby's Red Polls

My herd bull, J. D. Merryweather, No. 24396, is the son of J. D. Millie, A. R. Grand Champion cow at Minnesota and Montana, in the 1915 show-ring and won the milk and butter contest with Guernseys, Jerseys and Brown Swiss competing with records of 600 pounds butterfat. J. D. Millie weighed 1280 pounds at thirty months old, and is full sister to the World's Champion two-year-old heifer. J. S. BIXBY, : : LISBON, N. DAK.

MISCELLANEOUS

Threshing Rig

Complete Threshing Rig for sale at a bargain. Nichols-Shepard. 25 H. P. Double-Plowing Engine, 40x60 Advance Separator. Write for full particulars. John Kovarik, Walnut Grove, Minn.

LAND SHORTAGE NEAR! Prices of lands near market, advancing fast. Our lands still selling in tracts to suit, at low prices, and on easy terms, near \$20,000,000.00 Steel Works, now running here. **FREE LITERATURE.** Arnold, Land Agent, Rock Island Railway, 107 Wolvin Bldg. Duluth, Minn.

NO. 1 RYEGRASS seed for sale at \$1.50 per single bushel. Two to ten bushel \$1.40. Eleven bushels and up \$1.20, bags included. Makes excellent hay and is no trouble to kill out. J. CHARLES MARTIN

Maxbass, - - - North Dakota

LEARN TO SPEAK IN PUBLIC. We train men and women to be good public speakers. Money, position and prominence to be gained thru good platform work. Total cost is only \$5.00. We teach other things—send for outline. Prin. W. C. Moore, New Egypt, N. J.

WANTED. Live Foxes, Skunks, Mink and Badgers, any time. Envilla Stock Farm, . . . Cogswell, N. D.

WANTED to hear from owner of good farm for sale. State cash price and description. D. F. Bush, Minneapolis, Minn.

POWER FARMING. The magazine of farming with mechanical power. Send 10 cents for three months' trial subscription. **Power Farming, Box C, St. Joseph, Mich.**

Bromus Grass Seed. for sale at \$1.00 a bushel. Thomas Brady, Lansford, N. D.

For Sale 1914 Minnesota No. 13 and Northwest Dent seed corn, tests 97%. Olson Bros., Milnor, N. Dak. R. 3, Box 35.

Have a lot of fun. Be a Chicken Inspector in your district, send 10 cents at once for particulars. Western Supply Co., Dept. D. 2521 Cortland St., - - - Chicago, Ill.

WANTED—RESPONSIBLE REPRESENTATIVE. 12 tools in 1. Sells to farmers, teamsters, contractors, etc. Lifts 3 tons, hoists, stretches wire, pulls posts. Many other uses. Free sample to active agents. One agent's profit \$45 in one day. Another \$1000 in Dec. We start you. Write for Big Color Plate. Secure exclusive sale. HARRAH MFG. CO., Box M, Bloomfield, Ind.

Farms and unimproved lands on easy terms. Real bargains in any state. Send for our free magazine. Services free to buyers. **Western Sales Agency, Minneapolis, Minn.**

MINNESOTA, ST. LOUIS COUNTY'S choicest dairy-truck lands. Our property, direct. Low prices. Easy Terms. Arnold, Commissioner, Iron Range Railway, 509 Wolvin Bldg., Duluth, Minnesota.

Auctioneering

COL. H. A. KINNEY

Real Estate and Registered Stock Specialist—22 years experience. Write for dates and terms Breeder and shipper of Chester White hogs. Larger blood lines for 1915. Milnor, - - - NORTH DAKOTA

MISSOURI AUCTION SCHOOL
FREE CATALOG KANSAS CITY, MO.

churn, are all conditions that have an important bearing upon the process of churning.

Breeding stock should never be saved from the litter of a vicious old brood sow or from those that are always restless, because a quiet disposition is no small factor in the production of cheap pork.

It must not be forgotten that nitrogen, phosphoric acid, potash, etc., are not the only things that make manure so useful. Take away the humus-making part of manure and it will be no better than commercial fertilizer.

If you have a good sow that is a good milker, a good mother of a kind disposition and of good bearing, keep her on the farm and do not discard her and breed from immature hogs at the age of eight or nine months.

BIGGEST SALE EVER MADE IN THE STATE

Complete List of Buyers

They are Scattered over the State and Consignors are Well Known Breeders

The biggest purebred livestock sale ever held in this state was conducted in Minot last month when twelve bulls, two mares and thirty-four stallions, passed under the hammer of Auctioneer Frank H. Hyland of Devils Lake, bringing a total of \$19,149, surpassing all other sales in the value of stock sold and in the prices paid for the best of the animals. There were hundreds of farmers in the city who had come to purchase pure bred brood animals for the building up of grade herds and starting purebred herds on a larger scale.

The purchasers were distributed over the entire state which indicates that the interest in the best livestock it is possible to procure is statewide. The consignors of the stock are well-known breeders who have grade reputations that are known far beyond the borders of North Dakota for the individuality of the animals they offer the public.

The consignors and the purchasers of the individuals sold follow:

Sale of Shorthorn Bulls

Consigned by Peter Olson, Barto, N. Dak.—
Sold to John Lunder, Roseglenn, N. D., price \$125.
Sold to Mork Bros, Des Lacs, N. D., price \$115.
Sold to Geo. M. Robinson, Coal Harbor, N. D., price \$130.
Sold to O. L. Jensen, Harvey, N. D., price \$150.
Consigned by D. Beaton, Bottineau, N. D.—
Sold to John Wittmeyer, Upham, N. D., price \$100.
Consigned by Apland & Sorlein, Bergen, N. D.—
Sold to Wm. Ehr, Minot, N. D., price \$160.
Sold to Wm. Steinbach, New Rockford, N. D., price \$80.
Consigned by Wm. Sullivan, Langdon, N. D.—
Sold to A. Stonehouse, Larimore, N. D., price \$100.
Consigned by B. W. Aylor, Grandin, N. D.—
Sold to Geo. M. Robinson, Coal Harbor, N. D., price \$305.
Sold to T. L. Beiseker, Fessenden, N. D., price \$260.
Consigned by D. A. Black, Grandin, N. D.—
Sold to U. L. Burdick, Williston, N. D., price \$200.
Consigned by Paul Lueksinger, Minot, N. D.—
Sold to C. Lenton, Norwich, N. D., price \$160.

Sale of Percheron Stallions

Consigned by Evans Bros., Langdon, N. D.—
Sold to Geo. M. Robinson, Coal Harbor, N. D., price \$410.
Sold to M. R. Porter, Minot, N. D., price \$575.
Sold to M. M. Wheeler, Kenmare, N. D., mare, price \$375.
Sold to A. P. Scofield, Minot, N. D., price \$310.
Consigned by Chas. R. Faris, Langdon, N. D.—
Sold to Ralph Ward, Garrison, N. D., price \$500.
Sold to Wm. Scammon, Noonan, N. D., price \$250.
Sold to Lars Ellingson, Brinsmade, N. D., price \$575.
Consigned by R. J. Lyness, Fessenden, N. D.—
Sold to A. Granger, Bazana, Alberta, Canada, price \$400.
Sold to B. W. Aylor, Grandin, N. D., price \$360.

Sold to A. Granger, GBazana, Alberta, Canada, price \$1,110.

Sold to Leslie Colton, Burlington, N. D., price, \$280.

Consigned by Arthur White, Kramer, N. D.—

Sold to B. W. Aylor, Grandin, N. D., price \$700.

Sold to D. E. McAllister, Surrey, N. D., price \$500.

Consigned by Geo. Tims, Cando, N. D.—

Sold to Geo. Buechler, Minot, N. D., price \$960.

Consigned by U. L. Burdick, Williston, N. D.—

Sold to Lars Ellingson, Brinsmade, price \$350.

Sold to H. L. Linnertz, Foxholm, price \$200.

Sold to W. S. Emery, Valley City, price \$430.

Sold to M. D. Graham, Burlington, price \$775.

Sold to Geo. Robinson, Coal Harbor, price \$700.

Sold to H. J. Linnertz, Foxholm, price \$475.

Sold to Wm. Scammon, Noonan, price \$220.

Sold to D. A. Black, Grandin, price \$400.

Sold to O. K. Spies, Burlington, price \$405.

Sold to H. J. Yurley, Burlington, price \$375.

Consigned by John Kays, Calvin, N. D.—

Sold to C. F. Shong, Newberg, N. D., price \$625.

Consigned by D. F. McDonald, Langdon, N. D.

Sold to L. M. Thompson, Willow City, N. D.

price \$600.

Sold to John A. Johnson, McGregor, N. D.,

price \$410.

Consigned by Wm. Carroll, Minot, N. D.—

Sold to Wm. Scammon, Noonan, N. D., mare,

price \$400.

French Draft Stallions

Consigned by D. F. McDonald, Langdon, N.

D.—

Sold to M. D. Graham, Burlington, N. D.,

price \$525.

Consigned by A. Stonehouse, Larimore, N. D.—

Sold to J. S. Fahey, Ambrose, N. D., price

\$500.

Sold to Wm. McCormack, Minot, N. D., price

\$205.

Sold to Jacob Frost, Minot, N. D., price \$160.

Sold to J. P. Varnes, Des Lacs, N. D., price

\$200.

Sold to M. Jacobson, Minot, N. D., price \$215.

Clydesdale Stallion

Consigned by U. H. Sansburn, Cooperstown, N.

D.—

Sold to James Rutherford, Coulee, N. D.

Price, \$750.

VIGILANCE VERSUS LOSSES

Continued from Page 9.

ly "cakes," the one peculiarly predisposed to "garget" and other diseases, and when the dairyman complains that it is always the best udder that goes wrong, he is usually telling more truth than poetry.

Something similar is seen in connection with the birth function. Animals close to the state of nature, rarely have trouble when they give birth to their young, while in our improved breeds difficulty is very frequently met with. Even frequently enough to compel us to reckon with it and this we must do, if we are not to be occasionally confronted with grave losses arising from this source.

Lyndale Stock Farm

Breeders of Registered Red Polled Cattle, and Big Type Poland China Hogs. Some good bull calves for sale. Also pigs mostly all sired by a "Peter Mouw" bred boar.

J. E. BASS & SONS, Props. North Dakota

Tolley,

BIG TYPE

Poland Chinas



With quality; 100 to select from. Can furnish pairs not related, sired by four leading herd boars in the 1000-lb. class, Mouw's Jumbo 3rd, Dignans Chief, Baron and Miller's Big Chief. We are booking orders for Gilts to be bred for Spring litters. Prices reasonable. Pedigrees furnished.

J. A. Dignan

Waverly, : : : Minn.

As long as we maintain animals of inferior breeding, we may be inclined, rightly or wrongly to leave everything to nature, but when we are engaged in raising our more profitable, highly bred and expensive animals, we cannot afford to do so any longer. The valuable mare or cow about to give birth must be an object of our concern. We must be on hand in order to see to it that everything takes place normally and while actual assistance is not often necessary, we must be present to render it, if things do not progress according to program.

The amount of loss sustained by neglect of such animals is quite considerable and at least some of our breeders may well follow the example of their colleagues of the old world who would not think of permitting a valuable dam to approach the birth period without more or less constant observation.

When engaged in raising stock, we must be reconciled to supervise the parturition of our mares and cows and even with our ewes and sows we may be able to prevent losses by rendering timely assistance, when the time for doing so arrives.

This is merely one of the many details which demand the attention of the animal husbandryman. There are many others just as important. They all make for the prevention of losses, for the stopping up of many holes, big and small, thru which the profits are apt to slip away. Strict and consistent attention to them is merely sound business, no more and no less.

THERE'S MANY A REASON WHY DAIRYING PROSPERS

There are many reasons but here are ten given by George C. Humphrey of the Wisconsin College of Agriculture.

"(1) It enables the dairyman to anticipate and receive a neat and regular income from the sale of milk;

"(2) The sale of surplus young stock and cows, furnishes an income in addition to the income for milk, that adds to the profits materially;

"(3) It provides a home market and pays higher prices for farm crops than are ordinarily paid at commercial centers;

"(4) It utilizes grass and various kinds of feed that have no market value except as they are converted into milk or other salable products;

"(5) It provides a means of employing labor regularly and profitably at all seasons of the year;

"(6) It makes the farm permanently productive by the utilization of feeds on the farm and the use of farm manures;

"(7) The regular income from the sale of dairy products and stock enables the farmer to keep up permanent improvements and to take pride in the possession of a farm home;

"(8) Dairying offers one a great opportunity for becoming a thoro business manager and enjoying the game of trying to make everything pay;

"(9) It produces a human food for which there is no substitute and for which there will always be a constant demand and an opportunity to supply at reasonable prices.

"(10) It offers a most suitable environment for the development of high standards of living both for a family and a community."

RICHEST COW IN THE WORLD

Now that a majority of the milk markets are buying their supply on the butter-fat basis, it is with more than a passing interest that we note the Register of Merit record of the Jersey cow Merry Maiden of Innesfells 307454, owned by Dr. J. F. Thompson of Portland, Maine.

The milk of Merry Maiden averaged 8.13 per cent fat for 365 days. This is the world's highest butterfat average for a year record. Her lowest monthly test was 7.13 per cent, made in the sixth month of her test, and the highest was 10.05 per cent, made in the twelfth month. The highest percentage of fat for a single milking was 11 per cent.

Merry Maiden started test at four years four months of age, under the supervision of the Maine Agricultural College.

The final results show that she produced 560.4 lbs. fat or 659 lbs. 85% butter from 6,896.5 lbs. of milk.

SHEEP NOTES

In buying sheep, either for breeding or for feeding, be sure they are all entirely healthy. Diseases and parasites are readily transmitted from one flock to another by a single sheep.

Lambs, when two weeks old, should begin to eat grain in a side pen, from which ewes are excluded.

Roots go a long way in giving tone to the general health of the flock and fed with grain make both doubly valuable.

Summer pasture is a very important consideration in raising sheep. The animals should have grazing so that they can find succulent food in the morning when temperature is cool and again in the afternoon when the rays of the sun are not so penetrating. When temperature gets high in the middle of the day, sheep need shade and water.

Sheep will eat off many weeds that cattle avoid and in this way help clean the pastures.

Strawy beds at night make strawy wool at shearing time. Raw winds take more feed. Shelter your flock and save money.

Mutton and wool are high enough to encourage sheep raising, especially on farms where pasture is sufficient, with grain, hay and silage.

Heavy or forced feeding during the first year or two of the sheep's life will often make it lose its teeth between the ages of three or four.

The dairy cow may be regarded as a machine for transforming the food which she receives into milk, butter, and cheese. She has no power, however, to produce something out of nothing. The best she can do is to perform her work economically.

50,000 SHEEP 50,000 EWES - LAMBS - WETHERS

During the fall of 1915, the Envilla Stock Farm sold the above number of sheep for stubble feeding thruout North and South Dakota, Minnesota, Iowa, Illinois and Michigan.

This season we are prepared to do even a greater volume of business in this line and will have bred ewes, ewes and lambs, yearlings, and wethers to offer in car lots for delivery after April 1st.

We solicit your correspondence and will be pleased to keep you posted as to prices and deliveries.

Remember you can always get just what you want in sheep from us. Can also supply Registered Angus and Holstein Cattle, Shetland Ponies, Duroc Hogs, Poultry, Dogs and Pets.

Anything from a white mouse to a carload of farm mares.

ENVILLA STOCK FARM

Cogswell, : : : : : No. Dak.



Poultry Department



HOW QUALITY IS ADDED

Michael K. Boyer

Flavor in both carcasses and eggs is the result of what is fed. It does not go by favors. Flavor is not a question of breed. There are other causes to consider. Tenderness of flesh is due to conditions.

Young growing fowls, when it is intended to grow them for future breeding stock, will do better when on free range, but when the stock is wanted for broiler or roaster purposes the exercise must be curtailed. Tenderness of flesh cannot be obtained when the muscles are allowed to toughen.

In summer, yearling hens are more apt to be tough than they are earlier in the season. This, no doubt, is due to the condition of the fowl just approaching the annual molt. Hens in the molt are unfit for food. But only from a flavor standpoint—the drain upon the system in the growing of new feathers seemingly absorbs the juices of the meat.

If fowls, intended for roasters, are caged for about two weeks and fed a ration rich in carbonaceous material, with sufficient nitrogenous ingredients to balance, there will be a sweetness to the meat, and every bit of the carcass will be soft and tender. Several experiments tried by the writer last winter resulted in soft roasters that for quality were not surpassed even by capons.

Complaints are sometimes made that fresh-killed chickens have a peculiar, and at times a very distasteful flavor. This is due, generally, to being fed too heavily on nitrogenous food, like wheat. The ration for fattening, just like the ration for laying, must be balanced. Feeding too heavily or exclusively on wheat will produce a musty flavor.

Fowls that are fed onions, or are allowed access to manure piles, certainly cannot impart a good flavor to either the carcass or the eggs.

It is a mistake to cook a fowl the same day it has been butchered. It requires at least twenty-four hours for a relaxation of the muscles and for the meat to become tender. The old country method of running out in the barnyard to catch a fowl for dinner simply because the minister suddenly made his appearance, might be all well enough for the minister, but not very appetizing for the old folks with poor teeth and an expert knowledge of what quality is in a carcass.

It is important to dress the chickens immediately after killing. Several years ago, the writer was called on to inspect carcasses that were turning green about the vent. Investigation discovered that the party allowed the carcasses to remain until the next day before removing the feathers, which created a heat that spoiled the chickens.

Pure grains, pure meat, and clean water, will make finely flavored eggs. There is nothing in the belief held by New Englanders that brown-shelled eggs are sweeter in flavor, or by the New Yorkers that the white-shelled eggs are richer. The color of the shell, no more than the breed, can guarantee any superiority in flavor.

When hens are allowed free range and fed little if any grain, they are apt to feed too heavily upon grass, which sickens them and the eggs become watery. When opened they have the appearance of being addled. Suck eggs are known in the market as "grass eggs."

The flavor of the egg is readily spoiled after being laid, by being exposed to bad odors. Eggs like milk will very quickly gather in any poisonous air that may come in contact with them.

Professor Lamson, in a Bulletin issued by the Storrs Agricultural Experiment Station, says eggs may be infected after they have been laid, as it is possible for the bacteria to pass thru the pores of the shell. Moisture plays a part in such infections, for while the egg is covered with its normal mucilaginous coating and kept in a dry place it is difficult to infect. Infection is not a difficult matter, however, when the egg is moist.

Eggs are liable to be infected soon after they are laid. Nesting material is a great source of infection, for if this has been allowed to remain unchanged for a long time it becomes foul and teems with bacteria. Nine kinds of bacteria were taken from one nest.

Whatever the means of infection, it has been found that a larger percentage of the July, August and early September eggs are infected or contain a greater number of bacteria (at a time they may be called "fresh") than the eggs of the other months of the year, particularly, when compared with the eggs laid during the months of April, May and June. This corroborates the opinion of egg-packers who invariably prefer April, May and

Mammoth Bronze Turkeys

First at North Dak. State Fair. Fine heavy Stock at farmers' prices. CHRIS GEIR, R. R. 3 Edinburg, N. Dak.

PURE BRED Bourbon Red Turkey Toms: \$3.50 each. Mrs. F. Spriggs, Maddock, N. D.

Pure Bred S. C. W. Leghorn Cockerels \$1.25 each; Pullets \$1 each; 12 for \$10, f. o. b. A. Evans : : Garrison, N. Dak

FIFTY VARIETIES CHICKENS, DUCKS, GEESE, TURKEYS, Guinea. Incubators. Special low prices. Catalogue 4 cents. Dell Walrath, Janesville, Minn., Box X.

S. C. White Leghorns, R. C. Reds and Anconas. 34 prizes including first cup, my record for 1916. Eggs and stock in season. List free. H. H. Hirschy, Lisbon, N. D.

BOURBON RED TURKEYS, Unrelated Breeders. Buff Orpingtons, Good Prize Stock. G. H. Johnson, R. 2, Evansville, Minn.

S. C. W. LEGHORNS. The Famous Tom Barron's Strain. Cockerels, \$1.50 each; \$7.00 per five. Pullets, \$1.25 each; \$12.50 per dozen.

ROSE COMB REDS. Cocks and Cockerels, \$1.50 each. Hens, \$10.00 per dozen. Have a large flock to select from this fall and can fill orders promptly. Joseph Berg, Hendrum, Minn.

Eggs for Hatching, will make winners at any show. 15, \$2.00; 30, \$3.50; 50, \$5.00. Silver Laced Wyandottes, bred for business. Winter layers. Anthony Elm, Lansford, N. D.

Barred Plymouth Rock Eggs for hatching. \$1.50 and \$2.50 per 15, \$4.50 per 100. Satisfaction guaranteed. Laurel Hill Farm, Bx. 34, Westby, Mont.

For Sale Full blooded White Wyandotte Cockerels, \$1.50 each. Edith Mellis, Westerheim, N. D.

Silver laced Wyandottes. Baby chicks for sale. \$2.50 for 25; \$5.00 for 50. Mrs. Thomas Brady, Lansford, N. D.

FOR SALE. Barred Plymouth Rock Chickens, Mammoth Bronze Turkeys, Indian Runner Ducks. Eggs in season. Prices reasonable. Order early. J. Magnuson, Edinburg, N. D., R. 3

55 BREEDS Pure-bred Chickens Ducks, Geese and Turkeys, Hardy, northern raised, vigorous and most beautiful. Fowls, eggs and incubators at low prices. America's Pioneer Poultry Farm; 21 years exp. Large fine Poultry Book and Catalog Free.

F. A. NEUBERT Box 689, : Mankato, Minn.

Breed White Wyandottes. Eggs for sale from vigorous trap-nested stock. My birds win in show room wherever exhibited. M. C. James, Valley City, N. D.

White Holland Turkeys, Toulouse Geese and Barred Rock Cockerels. Gustav Larson : : Northwood, N. D.

White and Columbia Wyandottes, Light Brahmas, and S. C. White Leghorns Over 30 years a breeder. Stock and eggs for sale. MICHAEL K. BOYER, Box 27, Hammon, New Jersey.

ROSE COMB WHITE LEGHORNS and Rose Comb Rhode Island Reds. First prize winners at Valley City Winter Show. Eggs from selected layers \$1.50 per 15. \$5.00 per hundred. A few choice cockerels for sale reasonable. W. E. Shrum, Valley City, N. D.

EGGS! EGGS!!

From thoroughbreds—Geese, Turkeys, Pekin, Rouen, Muscovy and Runner Ducks, White, Barred, Buff Plymouth Rocks, Hamburgs, Games, Black Langshans, Houdans, Orpingtons, Rhode Island Reds, White and Silver-laced Wyandottes, Patridge Cochins, Leghorns, Bantams, Pearl and White Guineas. Poultry eggs, 15 for \$1.00; also White Rabbits, Hares, Fancy Pigeons and Guinea Pigs. Write for free Circular. D. L. Bruen, Platte Center, Neb.

BARRED P. ROCKS

Big, Strong, Prize-Winning Stock Hawkins, Bradley Strain

Eggs and stock in season at very reasonable prices.

PERCY BEALS

BOX 736 : : FARGO, N. DAK

RANSOM COUNTY POULTRY ASSOCIATION

Lisbon, Ransom County, North Dakota

We recommend the following breeders, members of our Association, to those desiring strictly high-grade eggs and stock. The Association offers no guarantee and assumes no responsibility or liability in any transaction with its members.

Pekin Ducks. Eggs for sale, 10 cts. each after April 1st. Thomte & Thomte, Lisbon, N. Dak.

Barred Rocks. From the Enoch Peterson strain of Alexandria, Minn. Prize winners, entire pen scoring from 89 to 93. Eggs after April 1st, \$2.00 per 15. F. L. Wheeler, Lisbon, N. Dak.

Barred Plymouth Rocks. Utility laying strain, first cockerel at 1916 Lisbon Show scoring 93. Eggs from prize winning matings \$2.00 per 15, from utility stock \$1.00 per 15 or \$6.00 per 100. J. E. Murray, Lisbon, N. Dak.

R. C. R. I. Reds. Longfield Strain. Eggs from prize winning breeding pens \$2.00 per 15, from utility stock \$1.00 per 15 or \$6.00 per 100. Geo. W. Daugherty, Elliott, N. Dak.

Black Langshang. First cockerel at 1916 Ransom County Show score 94.4. Eggs from utility stock \$1.00 per 15, \$6.00 per 100. Cockerels priced from \$1.00 to \$1.50 each. Steve Brittain, Elliott, N. Dak.

Rose and Single Comb R. I. Reds. My winnings at the Lisbon Show Jan. 3 to 8, 1916 on Rose Comb variety were as follows: 1st and 3rd cock; 2nd and 3rd hen; 1st cockerel; 1st and 2nd pullet; 1st and 3rd pens in the largest class in show. I have the Bean and Longfield strains of Rose Combs and the Harrison strain of Single Combs. Eggs from my prize winning pens \$3.00 per 15 or \$5.00 for 30. Utility eggs \$1.50 for 15 or \$7.00 per 100. J. R. Frisbey, Lisbon, N. Dak.

Single Comb Buff Orpingtons. Eggs and birds in season. Write for mating list and prices. E. C. Andrus, Elliott, N. Dak.

S. C. R. I. Reds. Royal Red Strain. Winnings at 1916 Ransom County Show: 1st and 2nd cockerel; 1st and 2nd pullet; 1st, 2nd and 3rd hen; 1st and 2nd cock. Eggs from prize winning pen matings \$3.00 per 15, from utility birds \$2.00 per 15 or \$8.00 per 100. Cockerels for spring matings \$2.50 each and up. Fred Strand, Lisbon, N. Dak.

Silver Spangled Hamburgs. Eggs in season from prize winning strain \$2.00 per 15. Two mature cockerels for sale at \$2.00 each. H. W. Gordon, Lisbon, N. Dak.

Single and Rose Comb Anconas. The kind that lays is the one that pays. Try a few settings of the 280 egg strain. Eggs \$1.25 per 15 after March 20th. A. G. Evans, Lisbon, N. Dak.

Regal Strain White Wyandottes. Heavy winter laying strain. Exclusive breeder of White Wyandottes for 20 years. Four breeding pens of assorted stock. Prize winners at Ransom County Show. Satisfaction guaranteed. Eggs \$2.00 and \$3.00 per 15. \$7.00 per hundred. W. S. Adams, Lisbon, N. Dak.

S. C. Brown Leghorns. Won all prizes but one second at Ransom County Poultry Show. Eggs for hatching \$1.50 per 15. J. G. Crites, Lisbon, N. Dak.

S. C. White Leghorns. Johnston strain. Eggs \$1.50 per 15 or \$5.00 per 100. I. E. Arntson, Lisbon, N. Dak.

Barred P. Rocks and R. C. R. I. Reds. Look, Listen, if you want the best. B. Pl. Rocks "Ringlets" Direct Both Matings, Mated by E. B. Thompson. Eggs \$5.00 per 15. Eggs from single mating \$2.00 per 15 or \$6.00 per 100. R. C. R. I. Reds, Kaufmann and Windheim Strain. High scoring birds. Eggs \$2.00 per 15. Toulouse geese, best eggs at \$3.00 per 12. Imperial Mammoth White Pekin Ducks. Eggs \$1.50 per 13. I always sell what I advertise and advertise what I sell. J. P. Grange, Lisbon, N. Dak.

R. C. R. I. Reds. Eggs from utility flock, bred for winter layers \$1.50 per 15. Six choice cockerels for sale at \$1.50 each. O. O. Uhlhorn, Lisbon, N. Dak.

S. C. White Leghorns and Rose Comb Reds. Vigorous range stock. Eggs \$1.50 per 15 or \$5.00 per 100. Cockerels and yearling hens after Aug. 1st. S. C. Anconas. The kind that lay and win. Eggs \$1.50 per 15, \$2.50 per 30. Won 33 ribbons and special cup for best and largest display at Lisbon Show in Jan., 1916. H. H. Hirschy, Lisbon, N. Dak.

S. C. White Leghorns. Eggs \$1.50 per 15 or \$5.00 per 100. Geo. Curtis, Lisbon, N. Dak.

Barred Rocks, White Rocks, Columbian Wyandottes, Golden Wyandottes, White Pekin Ducks. Eggs from Barred Rocks and S. C. W. Leghorns, \$1.50 per 15 or \$5.00 per 100. White Rocks. O. A. Barton strain, Eggs \$2.00 per 15. Columbian Wyandottes, prize winners at Valley City and Fargo, Eggs \$2.50 per 15. Duck eggs, \$5.00 per 100. Claude E. Taylor, Elliott, N. Dak.

June eggs to those produced during the other months of the year.

It is considered, then, that the April eggs have the best keeping quality, the May eggs and the eggs of early June, coming in the order named.

A Farm Bulletin, issued by the Kansas State Agricultural College, says a convenient and clean place should be provided wherein the hens can lay. They should be compelled to lay here in a clean nest. The natural tendency of a hen is to go off in the weeds and make her nest. This should never be tolerated, and any eggs found in such places should be marked and kept at home.

If the weather is bad and the hens' feet become muddy, the eggs should be gathered at least twice daily. This will keep them cleaner. If the weather is hot they should be collected at least twice each day, and oftener if the temperature is very high. This prevents eggs from commencing to decompose, or the germ, in case there is any, to start development.

As soon as the breeding season is over, the male birds should be separated from the hens. A male bird is not necessary for the production of eggs, but is useful only to fertilize them, which will be laid in spite of his presence. A fertile egg will commence development, consequently deteriorate, more quickly than will a sterile one. A fertile egg when fresh laid is supposed to be already started in its development, and if a hen is allowed to stay on it any length of time it will

soon be in condition not to be classed as a fresh egg.

In the hen a cluster of eggs are found which, in appearance, are not unlike a bunch of grapes. They vary in size from a pin's head to a full-sized yolk of an egg. Each of these eggs is contained within a thin transparent sac, and attached by a narrow pipe or stem to the ovary. While egg production continues these small eggs mature, and thus is kept up the supply. These rudimentary eggs are wholly yolk, and as they become larger they become detached from the bunch, and pass into the oviduct.

For intestinal worms in chicks, give a little garlic, in the food, or give turpentine one part, olive oil two parts. The dose of this last is one to two tablespoonfuls for an adult fowl; for the chick in proportion to size. One dose is generally all that is needed. This will be found a very good remedy.

NOTES ON POULTRY

Enoch Peterson, N. D. Exp. Sta.

The pullets that will fill the egg-basket in early fall and winter are the early hatched pullets.

The incubator is ready to use any time but with hens a desire to hatch cannot be hastened.

Select eggs for hatching uniform in size. Extremely small eggs or ex-

ceptionally large eggs should not be used.

Chicks should be left in the incubator thirty-six to forty-eight hours after hatching.

Keep the chicks well covered in cold weather while moving them to the brooder.

Keep the brooder in a sanitary condition. Impure air will ruin a fine flock of chicks in a very short time.

Make it a rule that every chick must come out from under the hover at feeding time.

Guard against sudden changes in the temperature. During cold weather locate the brooder indoors.

Keep the little chicks busy by feeding small grains in fine litter.

Chick size grit and fine charcoal should be kept before the young chicks at all times.

Both Machines \$
Freight Only 10
Paid

Think of it! These two UNBEATABLE Wisconsin Machines—Winners in five great National Hatching Contests, both for only \$10, freight paid east of Rockies. Guaranteed 10 years and sold on 30 Days' Trial—

30 Days Free Trial

130 Eggs 130 chicks

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WISCONSIN INCUBATOR COMPANY
Box 42 Racine, Wis.

School and Home



Miss Ura Leader,
Ruraldale, N. D.,
Dear Miss Leader:

Before this time you have no doubt seen the beginning of the bird migration to the north. Our feathered friends and benefactors have again

returned to battle against insects and to beautify the landscape with their brilliant plumage. And again we hear their cheerful songs.

Most birds are protected by law. In the opinion of our law-makers birds must be beneficial. Investigations prove they are of great importance. Very few birds are really destructive. Boys and girls should be taught to love all birds and to see that they receive proper protection.

The useful birds may be divided somewhat roughly into three classes. One group lives quite generally on insects, another lives on weed seeds, and the third lives on fruit and berries. I imagine however that birds like a variety of things for their different meals.

The early bird gets the worm, and I suppose it is the late worm that furnishes the moral. I have been told that a single fly may during one summer leave millions of descendants. The rate of increase is enormous. Think then what good an early bird may do in saving the fields of grain from the ravages of insects.

Study the birds and you can soon determine which ones belong to the different classes. Watch the insect eaters flit thru the air as they dart after the flying insects. See the birds pecking at trees and wood and see why they do it. Observe the snow-birds and see if you can determine on what they live during the winter.

Learn to know the different birds. There are several good bulletins which may be obtained, and in which will be found descriptions and in many cases colored plates of birds. Study the birds while in the field. Have the pupils make observations and reports on some of the common birds.

If possible instill into the young folks a love for these friends. Encourage the building of bird houses. See that birds are protected. The best way to develop a love for birds is by learning to know them.

The subject of forestry fits in well with a study of birds. When we have trees around the home there will be many more kinds of birds than there are now. What kinds of birds live quite largely in the trees?

There are many kinds of trees which will do well in North Dakota. All that is needed is a selection of the right kinds and then a little care during the next few years after they are planted.

Why not have trees around the school house? It costs very little to start them. It will do much to beautify the grounds and to make the school attractive. It will make a good place from which to spread the desire to have trees.

I think that everyone loves to have trees. The desire to have trees planted by our parents should be no stronger than to plant them for our descendants. Certainly trees are missed on the broad prairies of North Dakota. What better can be done than to devote a few hours giving instruction in tree culture.

Hardy shrubs and hardy perennials will also add much to the appearance of the school grounds. You can no doubt find many if not all the better varieties of trees and shrubs growing somewhere in your locality. Study

their habits of growth, and under what conditions they do best.

There is only one way to study agriculture and allied subjects, and that is in the field and in the laboratory. When studying birds, go to the places where they are found. Do not study "about" trees and other plants, study the plants themselves.

When discussing the advantages of good roads it will be well to remember that of necessity most roads in North Dakota will be earth roads. It will be foolish to talk about pavements and macadam roads in this state at this time. But we do not need pavements in order to have a passable highway.

A good crowned highway, with good facilities to carry away the water, and a little work after rains will do much for any community. It will make marketing easier. It will encourage neighborliness. It will make life in the country richer, for it will bring in the parcel post and rural free delivery of mail.

Now, Miss Leader, there are two view points from which you may approach each of the topics about which I have written. One is from the financial side, for trees, birds and good roads mean real money. The other is from the viewpoint of beauty and of pleasure. Both are worth while.

I fear I have not pointed out emphatically enough the importance of these things. So let me repeat the injunction to do this work in the field.

Sincerely yours,

O. O. CHURCHILL.



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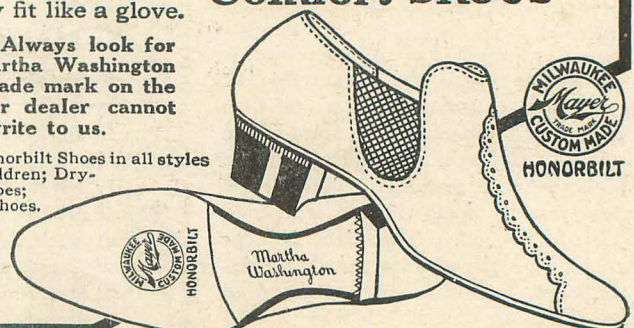
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F. Mayer Boot and Shoe Co., Milwaukee, Wis.



SOME POINTS FOR THE NORTH DAKOTA FRUIT GROWERS

Continued from Page 11.

mulched at all times, both winter and summer. If this mulch consists of half rotted chaff or pretty well rotted manure, it does not interfere with cultivation and at the same time it prevents the loss of soil moisture. After the trees get larger so that cultivation is more difficult, the entire area devoted to plum growing should be kept mulched with the materials named. This should be added to from time to time as it gradually decays. Another advantage of the mulch is that it tends to prevent the growth of weeds, such as foxtail and dandelions, that are ordinarily a very serious pest among trees.

There is a considerable choice of varieties among plums, and all of them are so good that one hesitates to make a list. It would be difficult to find a plum more satisfactory than the Surprise. The fruit is about one and one-half inches in diameter and of excellent quality. As a canned fruit it is particularly delicious. The tree bears heavy and we have the record of four bushels having been picked from young trees only seven years old.

Another plum a trifle larger, but not so prolific, is the Wolf. This is a bright red plum of very attractive appearance, and is also of splendid quality.

A plum more recently introduced into this state is the Terry. The tree of this variety makes a very vigorous growth and for that reason should not be planted in so rich a soil as some of the other varieties. Like the Wolf it is also a large plum, but is not so prolific as some of the others.

The American Plum crosses readily with the Japanese Plum, and in the last few years a great number of these crosses have been made, particularly on the Minnesota State Breeding Farm in Excelsior.

The crosses between the American and Japanese plum are in most instances larger than the American Plum and the flesh is firmer, making it suitable for market, as it will stand shipping which most of the American plums will not. These cross bred plums have not been propagated much by the nurserymen, but they will be this coming year, and one should be able to get them from the leading nurserymen this spring.

Another race of hybrid plums came about by crossing the Sand Cherry with the American Plum; and still another by crossing the Sand Cherry with the Japanese Plum. Of this latter group the Sapa and Opata are the leading varieties. While they are rather small, they are delicious and

are especially suited for canning and other culinary purposes. The trees are very shapely and ornamental and the fruit ripens early in the season before there is any danger of a frost. On account of their small compact habit of growth they are especially suited for the garden or dooryard on small grounds. Of the crosses between the American plum and the Sand Cherry, the Compass Cherry is most generally known.

Two dozen trees of the different

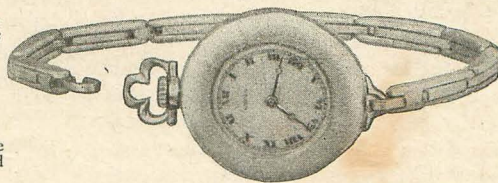
varieties here named would supply a family abundantly with fruit of better quality than can ordinarily be obtained in the markets, and at a cost that would not be felt as the trees can be grown on a small area and if kept mulched require but little cultivation. The twenty-four trees should bear from ten to twenty bushels on the average, one season with another for a long period of years.

Any of these plums would find a ready market in North Dakota towns

The Most Practical and Beautiful Timepiece For a Lady

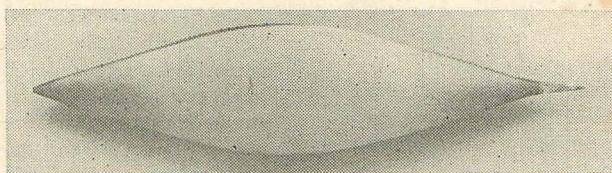
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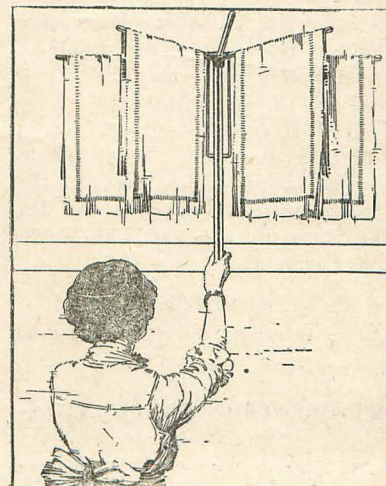
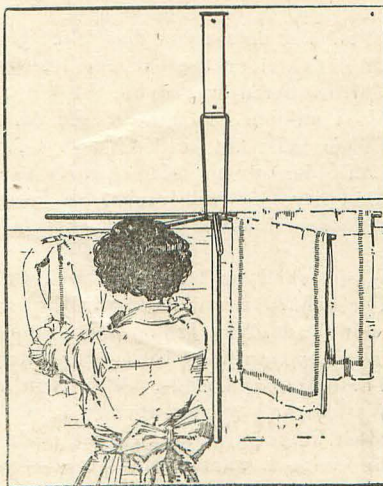
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Send only \$1.00 and your subscription will be renewed for two years and Hi-Lo Dryer will be sent you, post paid. If you prefer, we will enter two names for one year each.

NORTH DAKOTA FARMER, : : : LISBON, N. D.

at a price of two dollars per bushel. While the demand is not unlimited, still it is reasonable to suppose that one-half acre, or even an acre, devoted to this enterprise would return far more for the labor expended than almost anything that could be undertaken on the farm.

WEST HOPE FARMERS' CLUB

At a meeting of the West Hope Farmers' Club held March 25, 1916, the following resolutions were unanimously adopted:

Whereas there is now pending before Congress a Rural Credit Bill, and whereas there is much discussion as to the merits of this bill;

Be it resolved: "That the West Hope Farmers' Club, Stilwell, N. D., heartily endorse the sentiments expressed in an editorial under the heading "Is It Good or Bad," in the Fargo Forum of March 21, 1916."

Be it also resolved: "That we endorse the suggestion in this editorial, viz., "that it would be a good thing for President McVey of the University of North Dakota, J. E. Boyle, Professor of political economy at the University, Dr. Trimble, head of the department of political economy at the Agricultural College, Professor Weeks and Dean Waldron of the Agricultural College, to make the Rural Credit Bill now pending before Congress, a special study, and give their frank and unbiased opinion as to its merits and whether such bill now pending before Congress will be beneficial to the farmers of North Dakota or detrimental, and if detrimental, to point out such facts and report their findings to the North Dakota Delegation in Congress representing the people of North Dakota, and to The Associated Press of North Dakota."

Be it further resolved: "That a copy of these resolutions be mailed to each of the above named men, to the two local papers at Langdon, N. D., to The Fargo Forum, and The North Dakota Farmer."

ROBS ROBERTSON.

Sec. Westhope Farmers' Club.

NORTHWESTERN FEDERATION

On Saturday afternoon the Northwestern Federation of Farmers' Clubs met at Yeoman Hall, Daniels, and a very successful meeting was held. A large crowd gathered for the afternoon program and as some of the older folks were leaving for home new recruits were gathering for the evening doings. Several pictures were taken of the crowd by Theo Atchenson and

these will later appear in the farm papers of the Northwest.

After an opening song by the audience, the new president, Mr. Bronsky, made a few remarks, then proceeded with the following: readings, Agnes Borgen, Clara Ager and M. S. Myers; vocal music by Mrs. H. C. Otteson, Freddie Snowfield and Mrs. Wm. Arnold. All three were encored. Short speeches were made by Magnus Snowfield, Prof. Bodsford, H. C. Otteson and O. R. Daniels. It was decided to have the annual picnic during the early summer and arrangements were left to an executive committee composed of the officers. Lunch was served at 6:30, after which the young and those who felt young enjoyed themselves tripping the light fantastic toe for several hours.

LET UNCLE SAM REMAIN AT PEACE

H. C. Otteson, Calvin, N. D.

Let Uncle Sam remain at peace tho all the world may fight.
Are we to sacrifice the blood of innocence for spite?
Are we to join this murderous strife, because they us invite?
No, rather view this awful war with Christian hope for right.
The honor of this country great, they say is now at stake,
They say we must defend our rights no matter what it take.
If we can pay with hoarded gold, we will tho the cost be great,
But if it takes the lives of men we shudder at our fate.

We must prepare, our Chieftain says, we must have guns and men,
We must have ships to take our boys they'll ne'er bring back again.
Four hundred thousand soldiers more our present ranks to fill,
And modern guns and swords and shells—yes, anything to kill.
Let Congress and the president behold the awful sin
Wrought by the nations of the East whose policy has been
Preparedness and watchfulness, advantages to gain,
Who offer up their sons for greed and daughters, too, in vain.

"Yes, wed before you die," they cry. "Give us more men to sell
Or slaughter on the battlefield to perpetrate this hell."
Christ offered was upon the Cross; He died for all mankind.
Must millions now still offered be, that kings might scepters find?
"Thou shalt not kill," God says to men, and yet a Czar's command
Can order out his soldiers brave to drench with blood the land.
Almighty God will vengeance bring, their curse will be untold
Who sanction war to satisfy their thirst for power and gold.

Whom shall we fear? may well be asked. The Mexicans all spent?
The bankrupt nations of the East cooped up in trench and tent?
Is it the bluffing Japanese of whom the jingoes shout?
Is it our cousins of the north or nephews of the south?
These are our friends. Why then insult by threatening to assail?
Was Bryan's master-work in vain? Must Christian ethics fail?
Must all the treaties that we made to let the Hague decide
Be swept to all the winds that blow and to the swelling tide?

Oh, Uncle Sam, the hopes of all look to thy noble shore.
Refuse to be a party to such devilish work as war.
Show all the world that men can live by justice and by truth,
And let not one American this noble creed refute.
The Prince of Peace would never strike His foul antagonist,
Why should his humble followers all force by force resist?
"Peace be on earth, good will to men," so angels sung of yore.
Oh, let us make this sacred song resound from shore to shore.

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your home cosy, comfy.
No up-keep cost; no water
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Catalogue of all kinds of trees free for
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A Premium for the Home

See Page 19

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 We will send you **FREE of Charge** one of our handsome Ormulo Gold watch fobs as here shown with Seal grain leather strap and gold plated buckle on receipt of \$1.00 for a year's subscription to the National Sportsman. Here's what you get for your money:

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 All to you for \$1.00. Your money back if not satisfied.
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A FLAG

For Your School

This will interest patrons, pupils and teachers

One Teacher Writes:

Finley, N. Dak.

March 25, 1916.

The N. D. Farmer:

I am very much pleased with the premium you sent me. It took less than two hours to secure the ten subscriptions and I feel more than paid for my work.

Thanking you for your promptness in sending me the 4x8 flag, I am

Yours truly,

MARY BIRKLAND.

Write us for our plans by which you may obtain a big flag for your school without paying a penny. A postal will do.

NORTH DAKOTA FARMER,
Lisbon, - - - North Dakota

RHUBARB

Rhubarb can be grown more easily than almost any other vegetables. Its wide use for culinary purposes and the ease with which it can be canned for winter use make it one of our most useful vegetables. Mr. H. O. Werner of the North Dakota Experiment Station gives the following directions for growing it.

It does best in moist soils but will grow well anywhere in North Dakota. It can be raised from seed, but this is not the best method. The best method is to plant a piece of the root with one or more good eyes or buds. These root pieces can be bought from seed houses or they can be secured by lifting an old rhubarb plant and dividing the clump of roots into a number of pieces with one eye or more to each piece. These should be planted about 4x4 feet apart, as early in the spring as possible. All that remains to be done then, is to keep down the weeds, pull the rhubarb for use, and pull off all seed shoots which would weaken the plants. It is better to pull off the rhubarb than to cut it off as by cutting the stalks one is liable to cut too close, thereby injuring the root or some underground bud or one is liable to waste much in leaving a long stub. Very little rhubarb should be cut the first season of its growth, as the plant is not then strong enough to permit heavy cutting. After the first year it may be cut heavily for 6 or 8 weeks or lightly all during the season. The stalks produced before the hot days of summer have commenced, will be the best for canning. The rhubarb roots are perfectly hardy and need no special winter protection. A frequent application of manure will do much to increase the yield and improve the quality.

Very early rhubarb can be secured by placing a barrel with both ends knocked out, or a deep box, with bottom and top knocked out,—over a rhubarb plant and then piling fresh horse manure around the barrel or box with a small amount thrown inside. The heat generated by the manure will warm up the ground and cause the rhubarb to start growing. In its effort to reach the light at the top of the barrel or box, the shoots will grow more rapidly than they otherwise would. By this method rhubarb can be secured several weeks earlier than the customary time.

To remove grease spots when soap and hot water cannot be used: Place blotting paper under and over the spot and apply a hot iron. Then sponge with alcohol or chloroform.

when this method cannot be used, cover with powdered French chalk and let stand for a day or two. Repeat if necessary.

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Seasonable Receipts

Mrs. Sadie Baird, Editor

Many do not realize the food value of fish and also the economy of its use now that meat is so expensive. Every housewife should keep on hand a number cans of some reliable brand fish flakes as well as the always useful salmon. These flakes are previously cooked and only require the reheating given in preparing them in combination with other materials. Here are a few ways of using them.

Baked Whitefish

Season a well-cleaned fish with one tablespoon salt; sprinkle over the juice of one lemon, let stand thirty minutes, then lay the fish in a roasting pan, with three thin slices of larding pork under it and three slices on top of the fish; place the pan in oven and bake till done; transfer the fish carefully to a hot dish and serve.

Fish Balls

Add a ro-cent can of fish flakes to twice the quantity of well-mashed potato, mix in a beaten egg and one-half teaspoon black or red pepper. Form in balls and fry in bacon fat. An extra touch may be added by dip-

ping the balls in beaten egg and the rolling in fine crumbs before frying.

Fish Timbales

To one can of fish flakes picked to pieces with a silver fork, add one-fourth of a cup of very fine bread crumbs, one-fourth teaspoon pepper, two well-beaten eggs and one and one-half cup of milk. Mix and pour into patty pans. Bake these in a pan of hot water until firm. Arrange on a platter and cover with cream or tomato sauce.

For Salad

Fish flakes add much to a plain potato salad or make a good salad alone with lettuce. To use alone cover for about an hour before serving with three tablespoons olive oil or melted butter in which is mixed two tablespoons vinegar, one teaspoon grated onion and half a teaspoon pepper. Arrange on lettuce leaves just before serving.

Egg Paste for Sandwiches

To the yolks of 4 hard-boiled eggs add 2 teaspoonfuls mustard, 1 teaspoonful vinegar, 2 teaspoonfuls melted butter and a dash of common and cayenne pepper. After mixing these smooth, add the finely chopped whites and spread the mixture on thinly sliced bread.

Steamed Eggs with Ham

Allow a tablespoonful of minced ham to each egg. Grease either individual cups or a baking dish with bacon fat and put the ham in the bottom. Break the eggs in carefully over the ham and set the cups or baking dish in a pan of boiling water, cover and let boil until the eggs are set, usually about five minutes.

Escalloped Eggs

In a buttered baking-dish place alternate layers of bread crumbs, sliced cold boiled eggs, minced ham and cream sauce. Two layers of each are enough to bake nicely. Cover the top with bread crumbs that have been moistened with a little milk and bake about twenty minutes.

Children's Doughnuts

One-half a cup of sweet milk, two eggs, one cup of sugar, two teaspoons of baking powder, two tablespoons of butter. Mix. Use flour enough to roll out without sticking. Roll thin, cut in fancy shapes, fry in smoking hot fat lard and suet equal parts. Drain on white blotting paper.

Mock Oysters

One cupful cooked and mashed parsnips, one egg, 4 soda crackers rolled fine, one-half teaspoonful salt, one-eighth teaspoonful pepper, one teaspoonful Worcestershire sauce or catchup, 2 tablespoonfuls cream.

Add liquids and seasonings to the parsnips, then egg and crackers. Let stand thirty minutes, then form into oyster-shaped patties, dip in slightly-beaten egg diluted with a fourth cupful of water to each egg, and then in dry bread-crums, and fry in deep fat like oysters. Serve with catchup and cold-slaw. Left-over creamed parsnips may be used by omitting the cream in the list of ingredients.—Good House-keeping.

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high in quality and absolute in purity.
Booklet of Choice Recipes sent free on request

WALTER BAKER & CO. LTD.
Established 1780, DORCHESTER, MASS.




“How
Delicious!”

This is the verdict of
all housewives as to
Hiawatha
Canned Goods

This well-known brand represents the best that money can buy in Canned Fruits and Vegetables.

The Grocer who features Hiawatha Food Products builds both Profit and Prestige for his store.

We
Recommend
Hiawatha
Foods
FOR
TIRED
APPETITES



STONE-ORDEAN-
WELLS COMPANY

Eight Houses

THIS TREE OFFER IS NOT GOOD AFTER MAY 10TH, 1916. DO IT NOW!

12 Grafted Apple Trees

Given FREE!

FOUR HARDY, AND VERY CHOICE
VARIETIES

Including 3 Genuine DELICIOUS
3 Stayman Winesap - 3 Jonathan - 3 Wealthy

These Trees Are genuine grafted stock, guaranteed true to name, sound and healthy. We have arranged with one of the largest nurseries in the country for a supply of these grafted trees for our subscribers, and we want to send you a set of twelve. Whether your farm is large or small, these twelve trees will find a place, and add to its value and beauty.

Ask Your Wife What she thinks about setting out a Home Apple Orchard, and then—do as she says. The women know the value of a Home Orchard. It means plenty of sauces, pies and puddings. It means an abundance of the King of all Fruits on the table, every day in the year, and it means a tidy bit of pin money from the sale of surplus fruit from these trees.

Early Maturing Varieties Such as these four grand varieties means that you will have fruit from this orchard in just a few years. In three years you will have some apples from these trees, in five years you will have an abundance. From then on the yield of the trees increases with their size, until trees planted forty feet apart meet overhead. No better varieties could be found for a Model Home Apple Orchard, than the four in this collection.

Complete Instructions Are sent with each set of twelve trees, practical, simple directions that explain just how to plant and care for these twelve trees. By following these instructions you will have, in a few years, an orchard that will be a source of pleasure and profit to you.

This Offer Is made possible by a comparatively new method of propagating the apple tree. Instead of the slow, laborious method of "budding" a "seedling" apple tree to obtain the variety desired, a much quicker method is now employed. Healthy, vigorous branches are cut from trees selected for their size and yield. To each of these branches, called "scions," a strong root from same type of tree is carefully grafted, and the little grafted tree is ready to be set out. The twelve little trees we send you are all produced in this manner. They take root at once, and develop into large heavy-bearing orchard trees, as soon, or sooner than a larger tree planted at the same time. These little trees are about a foot long. You could not secure trees of better quality, or that would bear sooner, if you were to pay a dollar apiece.

LAST DAY, MAY 10th

As the demand for these trees will be enormous, you should take advantage of this offer at once, to be certain of getting your twelve trees early

Our Offer:
North Dakota Farmer
2 Years for \$1.00

AND
The Home Apple Orchard
Collection Just as Described
FREE and POSTPAID
SEND COUPON TODAY TO

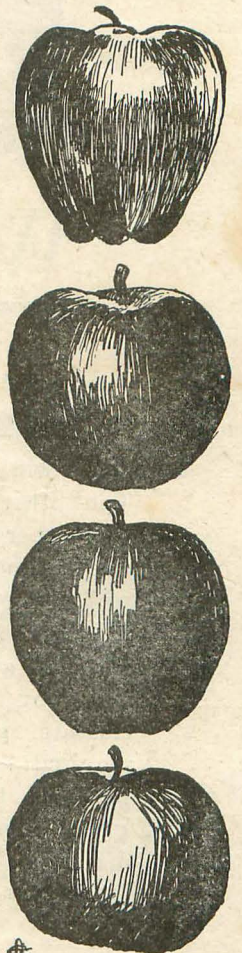
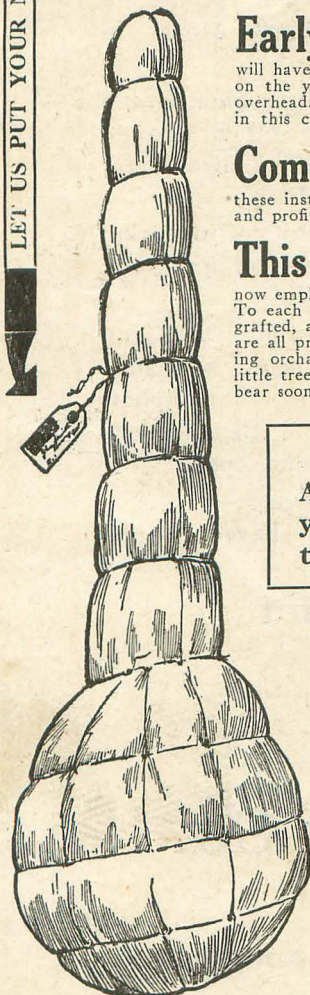
North Dakota Farmer
Lisbon, - North Dakota

NORTH DAKOTA FARMER,
Lisbon, North Dakota

Gentlemen: I enclose \$1.00 for which enter (extend) my subscription for a term of 2 years and send to my address, FREE and POSTPAID the entire HOME APPLE ORCHARD COLLECTION, consisting of Twelve Grafted Apple Trees:- 3 Genuine Delicious - 3 Stayman Winesap - 3 Jonathan - 3 Wealthy

Name.....

Address.....



LET US PUT YOUR NAME ON THIS TAG

THIS TREE OFFER IS NOT GOOD AFTER MAY 10TH, 1916. DO IT NOW!



Which Will You Have

Here are two cans of Paint.

Both are exactly the same size.

One will cost you \$2.25 per gallon. The other will cost perhaps as little as \$1.50 per gallon, but the Mound City Horse Shoe Brand at \$2.25 per gallon will cost you less in the end.

Reason? Simple enough.

Because a gallon of "Horse Shoe Paint" will cover a larger surface than the cheaper grade, and fewer gallons are required for the job. By actual test you will find that six gallons of "Horse Shoe Paint" (enough for two coats on a house measuring 2100 square feet) will go as far as ten gallons of the \$1.50 kind.

In other words, you invest \$13.50 in "Horse Shoe Paint," against \$15.00 in the cheaper grade.

Not only this, but the Horse Shoe Brand is bound to outwear the other two to one, making the Horse Shoe Brand far more economical in the end.

You save on the total cost of material.

You save in labor, because of the long life of the Horse Shoe Brand.

You save once more in the satisfaction of knowing that your property is beautified and protected with the highest quality of painting material that modern skill and science has yet developed.

AGAIN!! Mr. Property Owner:—

Which will you have?

Mound City "Horse Shoe Brand" Paint

Sold only by

Paint, Hardware, Lumber and Drug stores

Write for name of your nearest dealer

Mound City Paint & Color Co.

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